



BETTER HOMES MEAN BETTER BUSINESS. THE AMERICAN BUILDER ENDORSES A VIGOROUS HOME BUILDING AND REPAIR DRIVE IN EVERY COMMUNITY TO CREATE THE DESIRE FOR BETTER HOMES. BUILDERS, DEALERS, ARCHITECTS, REAL ESTATE MEN AND THE LOCAL DEPARTMENT STORES AND NEWSPAPERS SHOULD CO-OPERATE TO POPULARIZE BETTER HOMES.

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Government and Business

THE recovery measures adopted by the government in June, 1933, have proved a failure. In July, August and September, 1933, total production and commerce were *25 per cent larger* than in 1932. In July, August and September, 1934, after these recovery measures had been tried more than a year, total production and commerce were *less* than in 1933.

This is the opposite of what was predicted by advocates of N.R.A., P.W.A., A.A.A., and the other alphabetical acts of 1933, but in accord with the prediction of their critics.

STATESMEN, business men, farmers and wage-earners must face the facts if recovery is to be resumed. Depression and unemployment have existed and continue owing to decline of production and commerce in *private business*. They have been and continue to be the worst in the *durable goods industries*, including especially building, and can be remedied *only by reviving production and employment in these industries*. Therefore, for every statesman, business man, farmer and wage-earner the vital question is—how revive the durable goods industries? How, especially, revive building?

No amount of reduction of competition, reduction of working hours, raising of hourly wages, advancing of prices, government expenditures for public works and relief, will benefit a vast majority of the people if they retard, rather than stimulate, revival of the durable goods industries.

The National Housing Act is the first measure passed expressly to help revive a great durable goods industry—that of home modernizing and building. The government's National Housing Administration can help, but it cannot make the Act work. It will work only if there is created *an effective demand* from many thousands of persons for the modernizing of old and the building of new homes.

THIS demand must be created in every community by (1) banks giving loans on easy terms made possible by the Housing Act; (2) contractors, manufacturers and dealers making reasonable prices and doing efficient selling and advertising; (3) labor doing efficient work at reasonable wages. Lack of any of these factors may prevent the Housing Act from working. All of them combined will create an effective demand in your community, and every community, for largely increased expenditures and employment.

The building market is now a buyer's market. Always the problem in a buyer's market is not to *supply* a demand, but to *create* it.

These are elementary business facts. But other recovery policies have failed because they disregarded elementary business facts and principles. The revival of building, and of all business and employment, will be accomplished, not by new-fangled government policies, but by all business and work being done as they always have had to be done to get results—first to create a market, and then to supply it.

Samuel O. Drumm,

CHAIRMAN,
AMERICAN BUILDER PUBLISHING CORPORATION
SIMMONS-BOARDMAN PUBLISHING CORPORATION

AMERICAN BUILDER AND BUILDING AGE

Are the Interest Rates Too High?

SOME are "agin" the repair and modernizing program of the FHA, claiming (1) that property owners (expecting 5 per cent loans) are being misled as to the real rate of interest charged them, (2) that they cannot afford to pay such rates and so will not "go ahead," and furthermore (3) that if they are good enough credit risks to qualify for the FHA insured loans they can borrow at the straight commercial rate any funds needed to fix up their buildings.

Some few prominent newspapers have made these charges; although for the most part the press has been enthusiastic in its endorsement of the National Housing Act and the repair and modernization program.

In answer to such criticisms contractors, builders and dealers can cite the facts, and they should clear up all doubts on the part of any building owner who needs alterations or repairs costing more than his current cash reserve.

Has there been misrepresentation as to maximum cost of loans for building repairs and renovizing insured by the Government under the Housing Act? No. The regulations plainly state that the permissible charge of \$5.00 discount on a \$100 note for a period of one year to be paid in twelve equal monthly installments is equivalent to simple interest of 9.7166 per cent on the average amount of capital actually outstanding. Moreover it is fair to point out that the small installment loan borrower is really nothing out of pocket by paying his interest in advance. Despite all the fuss made because he receives but \$95 in exchange for his one-year \$100 note, and has to begin paying the loan back in a month, with continuous monthly payments at the rate of \$8.34 each, the fact remains that he suffers no loss because there is small likelihood of his finding any opportunity to invest such a sum for a short time with safety at a return worth collecting.

Charges Much Lower than other Installment Buying

As to the ability and the willingness of home and building owners to pay at the rate of \$5.00 discount for each \$100 borrowed, the fact is that installment buyers of automobiles are paying at a much higher rate, ranging from \$14 to \$20 discount on each \$100 borrowed. Fur-

niture is bought on installments at a cost of \$20 to \$40 per \$100 borrowed. The financing charges on most installment buying runs three to eight times higher than the maximum permitted charges for these Government guaranteed modernization loans. And about five billion dollars annually of installment buying is done by the American people. Income is received on the installment basis and it is only natural that any fairly large expenditure has to be made on the same basis. The FHA loans are offered at by far the cheapest rate ever available.

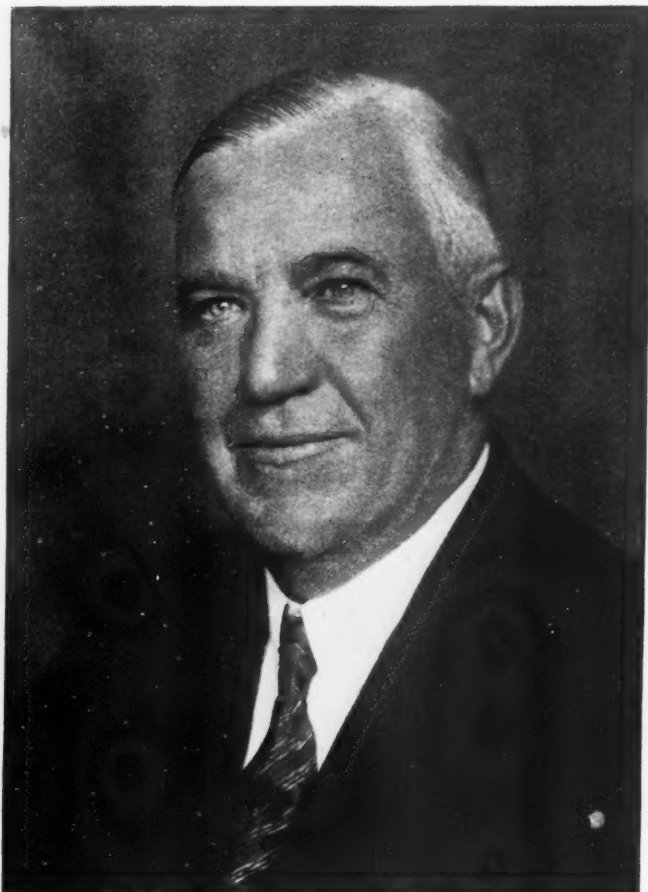
The final claim that ordinary commercial credit has been and is available to home and building owners for repair and modernizing loans is true, if at all, only in a very few localities. Such loans are classed as "slow" and banks dare not handle them. But now with the Government insurance back of them all bank examiners have been instructed to classify such loans as *good*.

Save by Ordering Now

However, laying aside the matter of discount vs. interest, there is no question that the home owner will save many a dollar by acting quickly, by going ahead without delay on needed repairs or to treat himself and his family to such new beauty, comfort and convenience in the home as they desire and can afford. For the cost of effecting changes now is so low by comparison with what it is likely to be in the future that any quibbling over a few pennies in interest or discount seems almost irrelevant and immaterial.

There is also an important consideration that delay inevitably increases the cost of repair. Damage breeds damage. A leaky roof, if repaired today, may mean only stopping a leak in the roof. Delayed until next week, it may mean replastering a ceiling as well. New hardware for garage doors, if applied when the need first becomes apparent, may be enough to furnish a smoothly operating portal. If unduly deferred, the doors themselves may have to be rebuilt.

It has been pointedly remarked that the home owner who wishes to modernize or repair at a lower cost than is now possible will have to wait until we are emerging from *another* depression.



J. HOWARD ARDREY

Deputy Administrator of the Federal Housing Administration in charge of Titles II and III, new home financing and establishing a market for insured mortgages

LOANS FOR NEW HOME BUILDING

TWO announcements of greatest interest to the home building industry were made the third week in September by Federal Housing Administrator James A. Moffett.

In the first he stated that by November first the Administration's plan for new home financing would be under way, releasing funds "for 1,000,000 or more homes this country actually needs." The necessary organization work, he added, is progressing with all the speed consistent with safety and efficiency, the rules and regulations under Titles II and III of the National Housing Act being drawn with great care and caution.

The second announcement of importance covered the appointment of J. Howard Ardrey as Deputy Housing Administrator in charge of Titles II and III. Mr. Ardrey is a prominent banker of Dallas, Texas, and of New York City, formerly executive vice president and director of the Guaranty Trust Company.

By this appointment Administrator Moffett completes the directorate of his responsible office in a way that is reassuring to business men. With Albert L. Deane heading up the modernization section of the program under Title I and J. Howard Ardrey heading the new home financing and the mortgage association work under Titles II and III, the program is off to a good start. The National Housing Act, passed by Congress last June, laid

on the Federal Housing Administrator more authority and responsibility for determining home building and financing policies, standards, procedures and rates than ever before were held by any individual or group of individuals in the history of America. The judgment which Mr. Moffett has shown in his choice of assistants and the results already attained in releasing funds for modernizing and repair jobs and in organizing a nationwide campaign to make property owners repair and renovate conscious merits the whole-hearted approval of building men.

The industry is encouraged at the prospect of early news regarding new home financing. One million seven hundred fifty thousand new homes are now needed, according to latest FHA estimates, with an ultimate potential of from three to four million new dwelling units. If the work of Messrs. Moffett and Ardrey is sound, many of these homes will be definitely planned this fall and winter for immediate construction. The big modernization drives now under way can continue straight through merging naturally into new housing campaigns. And so the industry can get back to normal employment and volume of sales.

Ardrey Prominent in Financial Circles

Mr. Ardrey comes to his new duties after years of active experience with the nation's largest bank and trust companies. Virtually all of his adult life he has been associated with financial institutions. He was born at Dallas, Texas, in 1875 and began business as a private banker in Godley, Texas, in 1896. In 1904 he was made a director and cashier of the Gaston National Bank in Dallas.

In 1909 he was an organizer, director and cashier in the Trinity National Bank, Dallas. During this time he was a member of the Federal Reserve Advisory Council representing the Dallas district from organization to date of his removal to New York.

In 1915 he was made vice president and later a director of the New York National Bank of Commerce. In 1929 he left this institution to become executive vice president and director of the Guaranty Trust Company.

* * *

SOUND BUSINESS ONLY

ORVILLE H. GREENE, of Syracuse, president of the Northeastern Retail Lumbermen's Association, recently stressed an important point relative to the FHA campaign for building repairs. "Property owners are being urged," he said, "to borrow money to make only such repairs and improvements as might be considered sound investments. If a man borrows \$500 and puts it into his property advisedly, he is adding more than that to the value of his home or business building. This is the only kind of loan the Federal Housing Administration wants to see made. They want no man to incur obligations that he is not able to handle on a monthly payment basis. This is good sound business—the only kind that counts in the long run."

MODERNIZATION

"which makes buildings of all kinds more cheerful, more livable and more salable"

CONTRACTOR CHARLES RICE performed the startling operation on Sam Friedman's grocery store in Leeds, Mo., pictured below. As a result, Sam's business has increased 25 per cent; Contractor Rice has a satisfied customer. The new front is of black and white Carrara glass.

STORES, SHOPS, APARTMENTS, filling stations, and commercial buildings of all kinds are getting unexpected attention under the Federal modernization finance plan. Contractors in small towns and rural sections are for the first time able to sell profitably such jobs to their local business men, and are bringing in the busines.





"Home..."

PROPERTY IMPROVEMENT
CREDIT NOW AVAILABLE THROUGH
LOCAL FINANCIAL INSTITUTIONS
APPROVED BY THE
FEDERAL HOUSING ADMINISTRATION

BETTER HOUSING PROGRAM
*"for those who live in houses, those who repair and construct
houses and those who invest in houses." FRANKLIN D. ROOSEVELT*

Jobs for Builders Mul-

- ¶ *Housing Administration is staging biggest popular campaign since Liberty Loans to promote Building Repairs.*
- ¶ *1517 Local Organization Committees at work on Local Campaigns.*
- ¶ *3000 newspapers featuring repair and remodeling pages—13,000 movies showing modernizing activities.*
- ¶ *7300 banks signed up to make loans.*
- ¶ *One Million Dollars a day being Loaned—Three million dollars a day being spent for building alterations.*

CONTRACTORS, builders and dealers are beginning to see results of the Housing Administration's push for building repairs and modernization in the form of orders. With insured loans to property owners for building maintenance and improvements now running a million dollars a day it is estimated by Housing Administrator Moffett that at least three million dollars of job contracts from this source are being placed daily; since the amounts borrowed on projects analyzed so far have averaged about one-third of the total funds required.

The first 4412 loans reported totaled \$2,026,000, each loan averaging \$459.00. The solvency of these borrowing building owners was shown by a study of their present yearly incomes. (The FHA regulations for insured loans state that the annual income of the borrower must be at least five times the annual repayment requirement of the loan.) The average income of these 4412 borrowers in 45 states was \$2955.00.

As the campaign proceeds the importance of local sales activity on the part of carpenters, contractors, dealers and all local building craftsmen becomes more evident. The Government is putting on the biggest publicity and ballyhoo drive since the Liberty Loans were sold to the public during the war. Every state has its leader; every city and town has its organization committee; 1517 local repair and renovize campaigns have already been launched, with 2,000 more coming along; newspapers in 3,000 cities have taken up the drive for building repairs; the movies are featuring it; pulpit and schools are praising and working for it; over 7,000 banks are signed up to extend the needed credit on the lowest terms that installment loans were ever offered; everything is ready—but very little will happen until the builders go out actively, each in his own community, to contact the building owners and definitely figure the requirements of each job. When that is done, loans will be made and jobs started.

Bank officials have told Federal Housing Administration officials that modernization loans are gaining momentum at a pace which promises mutual profit and prosperity in every community. They state that although the home betterment program has been in operation but a

short while it has already stimulated profitable business for the lending banks, the building trades, re-employment for the idle, stimulated trade in every line and better and happier homes.

As expressed by one: "It is getting stylish to have your house fixed up, just as it was stylish two years ago to wear shabby clothes and talk about your troubles. And if you don't think this is having an effect locally, ask the lumber yards and the paint dealers and the contractors."

W. H. Ownby, president of the National Bank of Mattoon (Ill.), says: "Applications are coming in at the rate of several daily. Loans are being granted at the rate of four acceptances to one rejection. Yet the standards of credit have in no sense been lowered from those maintained by the bank for open loans. Every loan will pay itself in full and promptly."

Mr. Ownby stresses the view that the loans are absolutely safe as the insurance feature covers losses up to an amount several times as great as that which could possibly ensue. He adds that the loans permit a lot of people to fix up their houses and pay for them at a rate which they can afford to pay at a time when contractors and building material interests cannot carry them because of their own impaired borrowing power. He continued: "And unless I am wrong this will put a good many people to work in town very soon after the loans are made. The plan is working out just as well as we dared hope it would. The number of applications is increasing daily."

In getting the Better Housing Program going the Housing Administration on Sept. 1 started a series of manufacturer, dealer and builder meetings, held both in Washington and in other cities. These have been crowded and enthusiastic. At these meetings representatives of many key industries from every section of the country have met with officials of the Federal Housing Administration to receive definite information as to the manner in which industry can co-operate with the Administration's endeavor to acquaint the public with the advantages of the Housing Act and to stimulate interest in home modernization and repair.

tiply as Big Drive Goes Forward

Ward M. Canaday, FHA Director of Public Relations, has described the various means devised by the Administration to reach the public. He has told in detail of the Administration's activities with reference to press releases, preparation of literature of all kinds, arrangements for radio addresses, and assistance in the form of designs for billboard posters, car cards, and other types of advertising approach. It was explained that the Administration had enlisted the aid of advertisers who, although not directly concerned with the construction or building material industries, were willing to tie in with their own advertising an appeal for widespread home modernization. The fact was brought out that 16 million dwellings in the United States were in need of repair, and it was asserted that repairs would be undertaken on a nation-wide scale if home owners were properly stimulated by a patriotic and economic appeal.

At all of these meetings "Visomatic" programs are demonstrated to familiarize the men of the building industry with this talking and picturing apparatus which has been drafted to help explain the campaign to local groups. Property owners, financial houses, and contractors are given an illuminating picturization of the possibilities of the Better Housing Program of the Federal Housing Administration in this series of sound pictures, known as Visomatic productions.

These photographic presentations, of which more than 300 sets are being issued for nation-wide distribution, graphically portray the benefits and advantages that await home owners, business property owners, and industry generally, in the National Housing Act. Each consists of a series of "still" pictures, with accompanying recorded script describing each illustration and discussing the modernization and repair program's various features.

Four separate Visomatic productions comprise the series. The first of these treats the modernization program as it affects the property owner, and requires 75 minutes for showing. Specific instructions are given for

obtaining loans, suggestions are made for improvements and the effect of the program convincingly presented.

A series of charts, showing community campaign organization set-ups, with suggestions for developing local modernization drives, is the feature of the second production, which requires 30 minutes for showing.

No. 3 production shows financial institutions how they can aid in the program, and gives detailed instructions for making character investigations, credit reports, and procedure of making loans in accordance with the regulations of the National Housing Act. This one takes 45 minutes to show.

The last of the series is produced for the benefit of dealers and contractors and also requires 45 minutes running time. It tells this group how it may obtain the benefits of the program and at the same time aid the property owner in his plans for property improvement.

The Visomatic outfits are being placed in the hands of Regional, State and District directors of the Federal Housing Administration, and a system has been worked out whereby local campaign committees may procure them from Western Union offices all over the country, with an experienced operator available with each.

Because of the large number of property owners whose mortgage or tax payments to some extent are not up to date but who still are able to maintain their properties, the Federal Housing Administration has announced a major modification of its regulations permitting such owners to apply for modernization credits.

Under the revised rules, any financial institution may use its own judgment as to whether the status of taxes should affect the approval of a loan. Also, any institution which does not itself hold the mortgage, may use its own discretion as to whether or not it will make a loan even though the mortgage may not be completely "in good standing."

In making this announcement, James A. Moffett, Federal Housing Administrator, stated that banks in many

LOCAL MEETING of builders gets the story of government's Better Housing Program from "Visomatic" sound and picture apparatus. Four different speeches have been prepared. Machine, record and operator can be secured on short notice anywhere by calling Western Union.



states had reported that they were willing to make loans because they were certain property owners would repay out of their incomes in spite of the fact some delinquencies had not yet been made up in connection with the principal or interest payments on mortgages.

This policy was estimated to make possible applications for modernization loans from several hundred thousand property owners who otherwise might have been barred.

Some Are Holding Back

Enthusiastic endorsements of the plans of the Federal Housing Administration have been printed in newspapers from coast to coast during the past ten weeks; and while most industry men have recognized what a help this is to their business one Doubting Thomas was discovered in a town of less than 15,000 population, in the East. As soon as the Housing Act was mentioned by an AMERICAN BUILDER reporter this man, a lumber dealer, launched into a long diatribe against "... the loss of all those liberties our forefathers fought so hard to get ... the dictatorial rulings of bureaucrats ... the un-American attitude of those who created all this new legislation." Being curious to understand this attitude, when it is apparent the Act is intended to help dealers as well as many others in the building field, the reporter did a little independent investigating. Within an hour it was discovered that this man: (1) Is a director in a personal loan company which charges working people more than 2 per cent per month (24 per cent per year!) for loans up to \$300 each; (2) Is not getting his share of the regular lumber business in his town, as his two competitors are alive to the opportunity and are selling circles around him; (3) He is almost wholly uninformed as to the details of the Housing Act and, according to his own statement, "... hasn't had any time to read a lot of junk about it."

Now, do these facts explain the attitude of the Doubting Thomas in question? The Housing Act will not allow him to make more than 9.72 per cent on his money, or less than half the charge he has been tacking on in the past; he is so blinded by prejudices he refuses to become informed about this great effort of the U. S. Government to revive and help home building; his attitude is



THIS is the old house in Passaic which will stand for six weeks or longer, partly modernized, open to the public.

evidently known, so that customers prefer to deal with his competitors rather than run the gamut of his criticisms.

A sharp contrast is presented by the statement of Mr. Peter DeRuiter, President, DeRuiter Home Improvement Company, Clifton, N. J. When asked about the FHA, he said: "I do not presume to know all the legal aspects of this legislation, nor do I yet know all the answers to questions being asked by consumers. All I can do is look at it from the standpoint of my own business. In that respect I have this to say: Three weeks ago we contacted a man who wanted a roofing job done. The estimate was \$335 and we got the job. Last week the work was finished and Mr. Way of the People's Bank and Trust Co., Passaic, had the check for the full amount waiting for me when I got there. That was our first experience with the FHA and I'm frank to admit we're all pepped up about it. We've got three other applications being considered by the bank now and we're right out after business from morning 'til night. What lawyers or self-styled critics think of the FHA doesn't interest us so much—we can see where we're going to make money out of this."

Progress of Community Campaigns

Enlistment of general interest and support is going forward rapidly with the promotion of community campaigns in thousands of counties, cities, towns and villages throughout the U. S. Study of the 158 community campaigns in the northeastern section, out of 1517 national, indicate that a high degree of general enthusiasm has been developed; in a considerable number of towns actual loans have been made and the local approved banks are co-operating.

In Passaic, New Jersey, Mr. Louis Levy is handling administration of the local campaign under the general direction of Charles Edison, Director, Region No. 3. So far Passaic has organized leading business men into a community committee, made some plans, given the general story to the newspapers. "Not much real activity yet," a Doubting Thomas would say. But the curious part is that some business has already developed!

"Yes," Mr. Levy admitted when asked, "Yes, a few dealers and contractors are holding back; however, the majority are cashing in right now and co-operating to the best of their ability. As a matter of fact, I cannot understand why any man in the building industry would fail to see the benefits he is bound to get from the Housing Act. The building industry has been so hard hit during depression years, maybe some of the men in it have subconsciously developed a defeatist attitude; there isn't much reason for this because our banks here have the money and want to lend it. Now a business man in any line won't forget for very long that his business success came through *his own ability to get the business*; so I think everybody will be lined up 100 per cent very soon now, including the small minority that have been letting the grass grow under their feet up to this time."

Passaic Decides to Demonstrate

The Passaic campaign includes modernization of an old house located near the business center of the city. This structure was built over 60 years ago and is sadly in need of renovation. The plan is to remove the gingerbread from the exterior, completely modernize one-half the exterior to show the contrast; inside, alternate rooms will be modernized, leaving the old rooms to show the improvement. The property is assessed at \$5900.

In talking with the owner of this property, Miss Mar-

JOB ANALYSIS

Study of a group of 718 modernization and repair loans among several thousand officially reported to the Federal Housing Administration as of Friday, September 21, show an interesting breakdown as to what the repairs and modernization were for.

The total dollar amount of these 718 repair loans came to \$415,719, making the average dollar amount of loans \$579.

Of the loans made, following are the number of jobs and the purposes:

Purpose	No. of Jobs	Percentage
Heating	265	14.53
Inside Painting & Redecorating	264	14.47
Plumbing	252	13.82
Exterior Repairs	177	9.70
Roofing	169	9.27
Outside Painting	168	9.21
Remodeling—General	155	8.50
Interior Repairs	102	5.59
Cementing	72	3.95
Lighting	64	3.51
Remodeling—Bathroom	56	3.07
Additional Rooms	44	2.41
Remodeling—Kitchen	36	1.97
	1824	100.00

The total number of jobs exceeds the number of loans because a given loan may have been made for two or more purposes.

Ninety-five percent of the loans were made for home improvements and five percent for improvements of business property.

Following is an analysis of those who negotiated these 718 loans:

Occupation	No. of loans	Percentage
Employees (Clerical)	135	18.80
Public Employees	131	18.25
Mechanics (Skilled)	96	13.37
Business Men (Sole Owners)	92	12.81
Salesmen	48	6.69
Corporation Officers	43	5.99
Laborers (Unskilled)	29	4.04
Renting Rooms or Apartments	28	3.90
Business Men (Partners)	28	3.90
Department Heads	28	3.90
Professional Men	26	3.62
Foremen	13	1.81
Storekeepers	9	1.25
Drivers & Truckmen	9	1.25
Barbers	3	.42
	718	100.00

The terms for which the loans were made are:

Term of Note	No. of loans	Percentage
1 year	227	31.62
18 months	59	8.22
2 years	411	57.24
3 years	21	2.92
	718	100.00

Of these 718 loans 564, or 78.55 percent, were new contracts and 154, or 21.45 percent, were previous borrowers.

garet F. Johnston, a number of very interesting observations were made by her. "We've a good sound old building here," she said. "It's been in my family more than 30 years. In that time we've come to appreciate the qualities of some materials and there are other materials you could never put into a new house for me. One item I think deserves a lot of credit is our gutters; they're made of copper and they've been in use right on this house for more than 60 years! Another item is the paneling in the downstairs rooms; that wood was put in place 28 years ago and, as you can see for yourself, it's perfectly solid and fine today. Then the slate roof—outside of a few slates which have fallen off in the last year or two, it's the same roof that was put on the house in the beginning." Miss Johnston was glad to have her house used in the campaign and, as might be suspected, is a strong advocate of community improvement.

AMERICAN BUILDER visited the People's Bank & Trust Co., of Passaic, and talked to Mr. Chas. Lohmann, who said: "We have money to lend under the FHA plan and will be very glad to put that money to work. We feel we will cover expenses incurred in handling such paper and the recent ruling of the FHA that banks may make loans at their own discretion, without regard to the condition of interest, amortization and tax delinquencies as far as Washington is concerned, is going to help. Of course, we take into consideration that a man who cannot pay taxes, interest, etc., may not be able to meet the modernization debt payments; but there are many cases where this dependency upon the judgment of the local banker will result in the granting of loans which would have had to be refused previously. We endorse the FHA and plan to do our part to make it successful in this community." When asked if he had noted any non-cooperating dealers or contractors, Mr. Lohmann said: "I do not contact those men as our local committees may, but I will say that this bank invites dealers and responsible contractors to bring good applications in. If the building industry member brings the client direct to us, we will be glad to make the loan direct; if the contractor or dealer will endorse the paper, it seems logical that any bank would look upon such paper as desirable. As a matter of fact, a number of loans have already been made under this plan by the Passaic banks, but no banker can be expected to go out and initiate business for contractors and dealers."

In regard to results in the form of actual work and materials sold, the Central Supply Company gave an interesting account. "Five jobs directly traceable to the publicity given the Passaic campaign so far have come to us," said an official of this company. "The curious part is that four of these jobs were spot cash transactions, the fifth involving the carrying of part of the obligation over a period of four months—which we were able to handle. Therefore, the results we have had to date will not appear in the community drive totals unless we can get this amount listed by special application. It is our opinion that a great deal of cash business will result from the FHA plans."

ORDER FORM FOR PUBLICITY MATERIAL

To Federal Housing Administration, Washington, D. C.

Ship to Street

City State Population of City

Form number	Description of material	Quantity desired
FHA-8	Information Leaflet (Folder)
FHA-101	Property Owners Booklet
FHA-102	Community Campaign Booklet
FHA-103	Builders Booklet
FHA-104	Manufacturers Booklet
FHA-106	Community Planning Booklet
FHA-107	National Housing Act (Text)
FHA-108	Equipment Permitted or Excluded
	Clip Sheet for Newspapers

Signed Occupation

Have you started the Better Housing Campaign yet? Hundreds of newspapers are all over the country have written in for maps and reading matter with back to get going. Some sections already have appeared.

The opportunities for newspapers to "cash in" are greater now under the National Housing Act than they have been at any time since those post-war days when automobile and radio sections were so prevalent. You can now sell space to contractors, material men, banks, department stores, home equipment dealers, utility companies, and dozens of others who will be well-served, like you, by the Housing Act.

The United Housing Administration is inviting newspaper owners to join this important new campaign. Send for a copy of a Modernization Kit, like this one, right now. It will tell you all you need to know. This service is absolutely free. Be sure to request ours if you want them.

504

Stairs Equally Installed
Stairs to the attic, if these do not already exist, usually can be built without disturbing the order of the lower rooms. An infinite variety of finishes may be worked out for stairways. Boards may be used for wainscoting and for partitions. The

MODERNIZING CLIP SHEETS like the above are being sent to thousands of daily and weekly newspapers by the Federal Housing Administration. Mats are supplied free. Publishers are urged to start local better home sections, prepare special modernizing advertisements.

FHA Supplies Newspaper Service—

IN hundreds of newspapers in cities, towns and country villages, better housing pages and sections are beginning to appear for the first time in years. At the same time local building men under the stimulus of the National Housing Act and the newspaper editorial support are beginning to resume advertising in a way that should do much to revive interest in better homes.

The reason for this sudden development of newspaper interest in the better housing drive is the work the Federal Housing Administration is doing in supplying newspapers with needed editorial information on the Housing Act. The clip sheet service to daily newspapers (illustrated above) and a bi-weekly service to weekly publications is providing newspapers in every state in the Union with ample reading material suitable for better housing pages, sections, or special supplements.

Newspapers have been quick to grasp the opportunities provided by this service to increase their advertising lineage. At the same time, the local building industry

in any community is so much benefited by a well edited and aggressive better housing section in its local newspaper that it can afford to support such a section with advertising.

The value of local newspaper advertising by contractors, lumber dealers and other building interests has never been questioned. But in recent years the newspapers have done hardly anything editorially to support such advertising. With the tremendous interest being shown in home modernizing and improvements, and assisted by the weekly clip sheet service from the Housing Administration, newspapers are now giving the local building industry the support it needs. Already numerous local building committees have responded with full-page cooperative advertisements and with pledges of support. Sample advertising and art work has been prepared by the FHA which contractors and dealers can use and this, too, has simplified the problem of getting the message to the public quickly and effectively.

St. Paul Stages Public Remodeling



22-YEAR-OLD HOUSE selected by St. Paul Modernizing Clinic for remodeling in downtown location. Construction handled by Paul Steenberg Construction Co. Materials from Lampland Lumber Co.



"THE BEST interest-creating project for FHA we have seen yet," was the comment of Anna Dickie Olsen and Fred Schilplin, state directors of the Federal Housing Administration, as they inspected St. Paul's demonstration modernized home (above).

PHOTO TAKEN Sept. 21 as the work of Contractor Steenberg and Architect Ingemann began to show. Note how the new chimney, better proportioned windows, bay and cornice treatment have already transformed its appearance.

PRACTICAL LESSONS in home improvement illustrated as 22-year-old house is modernized on Court House Square. Women especially interested

By JOSEPH B. MASON

"YOU can believe what you see" is what the skeptics say. In St. Paul the Paul Steenberg Construction Company is giving skeptics a chance to see for themselves how a home can be remodeled from a 22-year-old worthless shack to a comfortable modern home.

The remodeling project is being staged on the site of the old City Hall and Court House where every construction step is visible to the public. The project is part of a Home Modernizing Clinic sponsored by the First National Bank of St. Paul co-operating with a number of local building interests.

In many respects the St. Paul modernizing plan is similar to the Renovize Portland program described in the August AMERICAN BUILDER. This method of dramatizing the methods, materials and results of modernizing is well worth duplication in every city in the land. With more than 2,000 communities laying plans or already starting on better homes campaigns, it is certain that many more demonstration modernizing homes of this kind will be staged during the coming months.

The house selected for the St. Paul demonstration was a 22-year-old building of doubtful value. Architect William Ingemann was commissioned by R. C. Lilly, president of the First National Bank, to prepare a modernized design for this house. The Paul Steenberg Construction Company is doing the work, with lumber and



millwork supplied by the Lampland Lumber Company. Other firms co-operating in the Home Modernizing Clinic are: plumbing and heating, Crane Co. of Minnesota; electrical contractors, Commonwealth Electric Company; electric fixtures, Guy T. Bisbee Company; brick, Twin City Brick Company; painting contractor, Conrad Haglund; paints and varnishes, St. Paul White Lead and Oil Company; house mover, H. W. Prodder; hardware, Adam Decker Hardware Company; landscaping, Holm & Olson; furnishings, Schunemans and Mannheimers.

State Directors Anna Dickie Olesen and Fred Schilplin of the Federal Housing Administration have declared the St. Paul job to be "the best interest-creating project for FHA we have yet seen." "The women in particular are watching it with interest," said Mrs. Olesen. "The work of modernization will make of it a house which any woman would be glad to call home. When that house as it stands today is made into a modern home, it is going to give hope to many who will feel that they too can afford, through the Federal Housing Plan, a more suitable home for themselves and families. The hope of a good home is the dream of every woman."

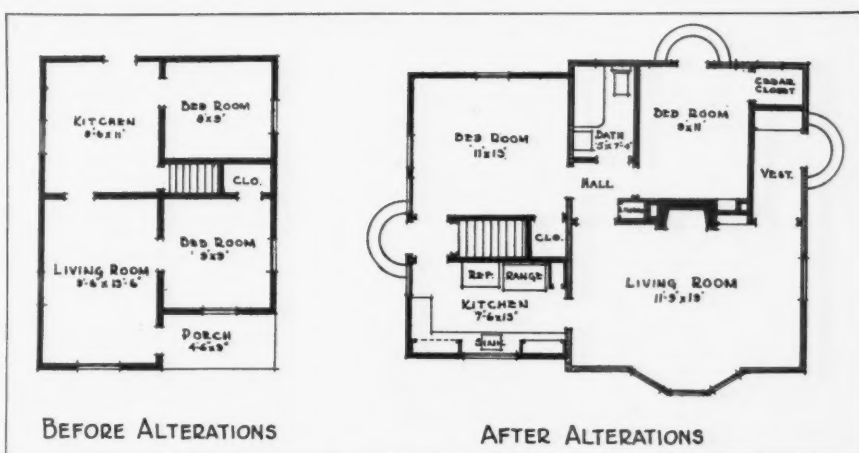
The better homes campaign is making great headway in Minnesota. Up to Sept. 13, 300 loans had been executed averaging about \$400 each, with average payments running 27 months. There were 1,800 inquiries for loans on hand to be disposed of. According to Director Schilplin, better housing campaigns had been put into effect in 12 of the largest cities of the state on Sept. 13, and a great many smaller communities are getting

started. Detailed plans have been set up for better housing committees in practically every community of Minnesota, he said.

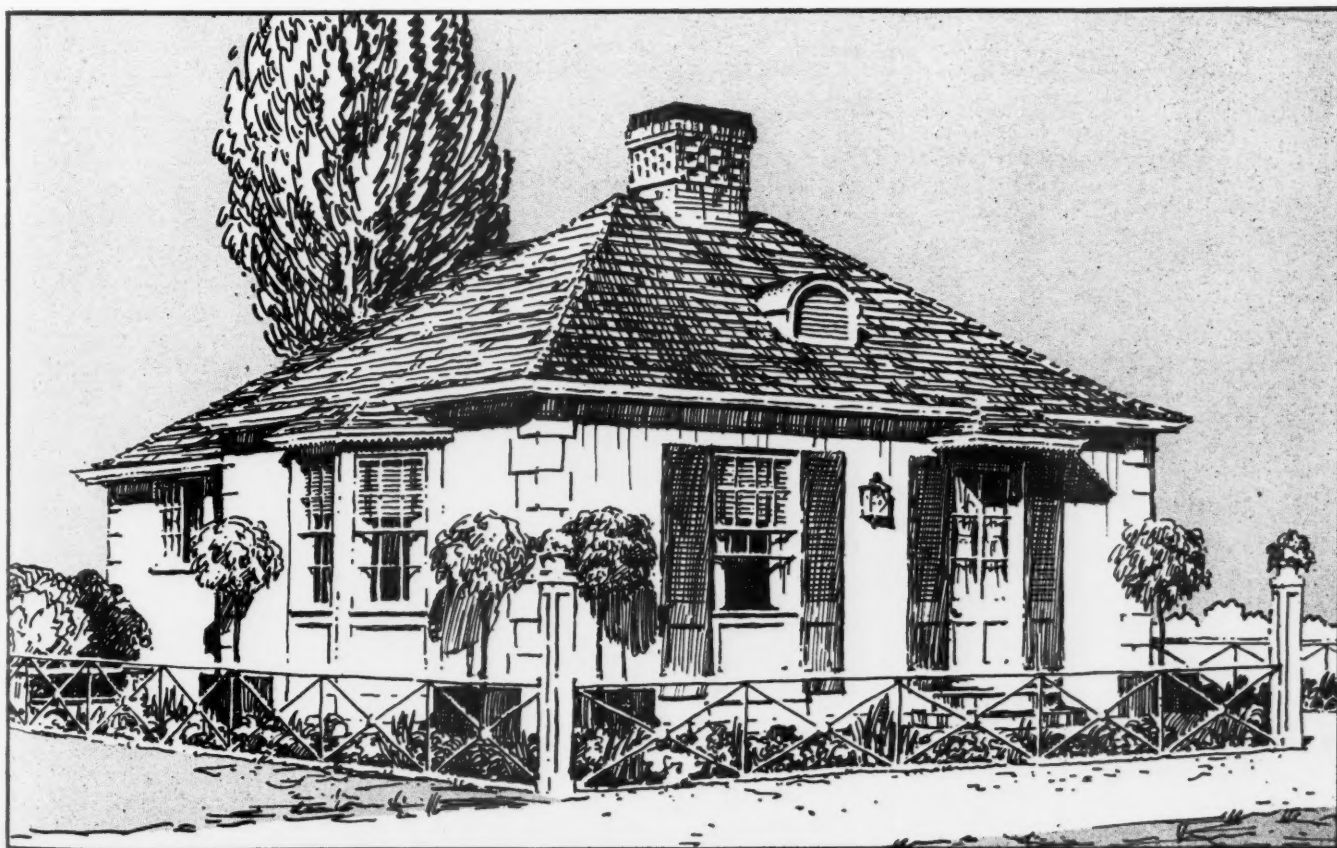
Commenting on the dramatic modernizing demonstration, R. C. Lilly, president of the First National Bank, says, "We have planned this remodeling work as a graphic demonstration of what can be accomplished by the spending of a reasonable sum.

"We feel business of the building trades will be stimulated. many people will be returned to gainful and useful occupations, and housing conditions locally will be improved if the bank's demonstration does its intended job.

"It is possible our own remodeling project will seem rather ambitious to the general public, but it should be borne in mind that we are not advocating that everyone perform comparable improvements. Rather, we are attempting to give a true picture as to costs and results."



SHOWING HOW REVISION OF THE FLOOR PLAN changed the old-fashioned structure into a modern home. Below is shown the architect's drawing of the house as it will look.





ADDITION OF WINGS to house church functions is suggested by this attractive church structure at Kingsport, Tenn.

Church Buildings Need Modernizing

Work Can Be Financed by Federal Housing Credit Plan. Builders Urged to Promote Improvements

By ELBERT M. CONOVER

Director, Interdenominational Bureau of Architecture, New York

VISUALIZE a great institution with more than 200,000 branch houses in the United States. This represents the physical structure of the American churches. In this institution there is a personnel totaling thousands of workers, research experts and leaders who are constantly studying to advance and change the activities of the institution. The church has this research and extension personnel in its theological schools, institutes and training conferences. The advances and changes in methods and program, together with the ordinary wear and tear, constantly produce obsolescence and deterioration.

Ninety per cent of the great physical structures of the American churches need rebuilding and replacement in addition to ordinary repairs and maintenance. This structure is generally in a bad condition today. Many heating plants are broken down, floors are worn, many new roofs are required before the coming winter.

Builders, manufacturers of building materials and equipment, and craftsmen should realize that the churches provide a permanent field with a tremendous

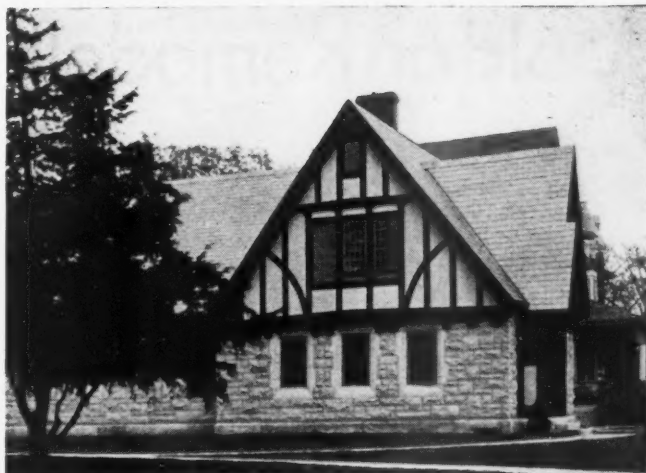
volume of needed work. To the vast majority of its members the modern church is a club and social center, and school of religion as well as purely a sanctuary for worship. This means that a wide range of building materials and equipment is required.

Hundreds of churches have written to denomination headquarters and religious publications inquiring about the Government's plan to insure loans for repairs, and improvements will exceed the amount to be borrowed. Besides the repair and improvement program many churches cannot much longer postpone more significant improvements, such as new wings for religious educational and social work. Many churches indefinitely must postpone new building enterprises but cannot longer delay some sort of improvement.

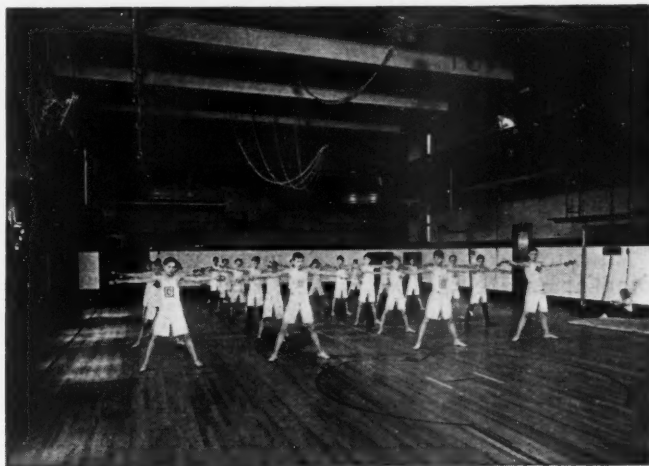
Builders and others interested in building and equipment activities may do much to promote needed improvement enterprises. They should not be afraid of being considered selfishly interested. The church is an important institution in the community and should in its building program set a good pace for the community by

maintaining its property in an excellent condition and providing for increased service and modernized activities. Many churches stand in the need of "expert eyes" to call attention to the possibilities and advantages of improvements to the physical structure and equipment. Churches should be included in all community programs for property improvement. Here are some of the needs that contractors, material and equipment manufacturers, craftsmen and architects can point out and help their friends and neighbors in the churches undertake by way of improvement:

1. Recondition all exteriors as needed; renew or repair roofs; painting; wall, window, door and step repairs, etc.
2. Heating equipment.
3. Overhaul wiring; guard against fire hazards.
4. Install or increase water supply.
5. Plumbing; additional lavatories. The writer knows of one church that has only one toilet per 600 members.
6. Ventilating. 85% of church attendants kick about the lack of proper ventilation. Builders can tell of economical and efficient ventilating systems.
7. Repair glass; replace colored glass with clear glass in all rooms used for school purposes.
8. Floors; cover all concrete basement floors with suitable manufactured flooring. Cover old wooden floors.
9. Increase usage of basements by constructing new wall and ceiling coverings, as well as attractive flooring; install efficient heating and ventilation.
10. Redecorating. Remove all gosh-awful scrolls and fuzzy decorations.
11. New lighting fixtures. Much of the sleeping in church is due to ungodly lighting equipment.
12. Partitions to provide a greater number of separate soundproof class rooms. Too many Sunday Schools reproduce the confusion of the original Tower of Babel.
13. New additions.
14. In many cases complete remodeling of the exterior. Transform hideous architecture of the nineties into some true architectural expression.



HALF TIMBER WORK gives charm to the architecture of this church house wing of a modern structure at Berkeley, Calif. Better architecture and modern construction are greatly needed by many churches.



A MODERN GYMNASIUM in a church in Pittsburgh. The growing functions of the church require increasingly complete plants. Such improvements can now be financed by FHA.



THIS ATTRACTIVE WING is typical of the kind of addition needed by many small churches to house their activities. It is part of the Episcopal Church at Queen Lane, Philadelphia.

"Sold on Remodeling" Says A. W. Brown



A. W. BROWN and his Spirit Lake, Iowa, crew. They are, left to right: Charles Yarnes, Art Ziegler, Arnold Peck, A. W. Brown, Chas. Lynn.

How Spirit Lake, Iowa, builder rebuilt a house and made a profit. Small towns need this type of work, he says. F.H.A. will help.

By A. W. BROWN

I AM SOLD on remodeling. The enclosed pictures show why—an old house here in Spirit Lake before and after I started work on it. The old house and lot cost \$185.00; the remodeling \$2,315, or a total cost of \$2,500. It rents for \$30.00 per month; taxes are \$46.00 per year. So figure it out for yourselves.

In a town of this size, old buildings like this are as familiar as one of your own family. Remodeling one starts talk, and talk is advertising.

People in this town have awakened to the value of this old stuff and so it's hard to get hold of any more. They are buying these old buildings and holding them until they can raise money to carry their plans through. The National Housing Act will be the means of converting a whole lot of this worthless property into homes that we may all be proud of.

A few dollars and some planning will make something out of the worst of them. Lift them out of the mud, tear off the old siding, replace with shingles, wide siding or stucco, trim up trees and then notice the difference!

I got most of the ideas for the job illustrated below from the American Builder. Just here and there from issue to issue. After working the ideas into a satisfactory sketch, I took them to Harold Jones, a young architect in Council Bluffs, Iowa, who was on another job up there. We worked on the plans and he ironed out a good many things that helped bring about a better job. The results are shown on the plans and pictures.

We used as much of the old structure as possible, and added a garage, entry, bedroom and bath. Some of the specifications include Celotex lath insulation, Curtis Silenite windows, 13/16-inch oak floors, Steeltex metal lath outside for stucco, Redfield face brick, Standard plumbing with recessed tub and shower, hot air furnace with fan, heated garage with Over The Top hardware.

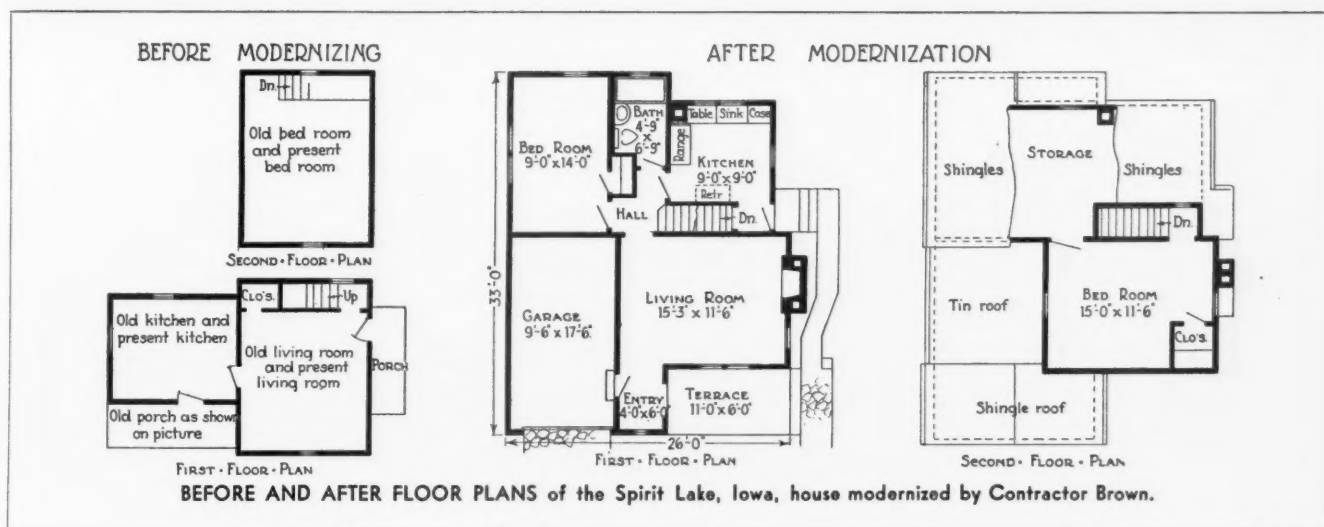
I do some advertising in the local paper, and have always met with success. In fact, I have netted in the neighborhood of \$10.00 for every dollar I ever gave the paper. I also depend on the advertisements in the American Builder for almost everything I need, and have writ-



BEFORE MODERNIZING (above), the old house in Spirit Lake looked like this. It was purchased for \$185 including lot, but in its above state was not worth even that.

AFTER MODERNIZING by Contractor A. W. Brown, the old house looked like this, (right) and was a completely modern structure renting for \$30 a month.





ten as high as a dozen letters to advertisers from one issue. I have all the copies I have ever received filed for reference, which makes a library of information that's hard to beat.

I have been in the building game for over twenty years, as a mason contractor, and of course see to that end myself. All other tradesmen are hired and I always get the best men to do their part of the work, buy the best material—and use plenty of it. This costs a few dollars more to start with but you save it many times in the long run, as depreciation is cut, up-keep is smaller, besides one has a more desirable piece of property. My desirable property has been making me from 15 to 20%, even through this depression. It pays to use nationally advertised goods when building a house to sell or rent.

WHAT JOBS ARE YOU DOING?

This is a personal account of a typical small town job by a typical builder. American Builder is interested in your work. Send photos and a description to 105 W. Adams Street, Chicago.



ANOTHER VIEW of the old house is shown above, and at left is how it looks after modernizing. Total cost of the work was \$2,315. A garage entry, bath were added.

HOUSE WAS RESURFACED with stucco, insulated, equipped with modern plumbing and hot air heating. New windows, oak floors and heated garage with overhead door were included.

\$100.00 REWARD

I SPECIALIZE
IN
NATURAL ROCK
FIREPLACES

For Any
FIRE PLACE
I Cannot Fix So It Will
Work Properly

Just phone 158-R and then answer your door bell.

DO BRICK WORK,
STUCCO, OR ANY-
THING DONE WITH
MORTAR.

A. I. Brown, Spirit Lake, Iowa

"Before and After"

Convincing Pictures Can Be Used to Make Modernizing Sales

FORIN WOODBURY, realtor of Salt Lake City, writes the *AMERICAN BUILDER*: "We enclose two before and after views of modernization recently completed in Salt Lake City by our company, under direction of Harry P. Poll, architect. In these may be found a ray of hope for the owners of non-productive or at least unprofitably operated properties.

"Exhibit A represents a one time dwelling which had been made over into apartments by its former owner. The mortgage on this and adjoining apartments was

foreclosed by first mortgagee and sold to our client, who held a substantial second mortgage. Since remodeling, the property was sold for sufficient to pay our client, without loss, his original second mortgage investment, as well as the money spent for modernizing the exterior which, in this case, amounted to less than \$1,000.

"Exhibit B, one of the oldest buildings in its particular vicinity, was ordered torn down as the building and loan committee, just having acquired through foreclosure, saw no value. The work of modernization returned the investment to the association, without loss, and rendered a profit on the additional expenditure."

As the modernizing work under the Housing Act gets into full swing, the building industry is coming to realize the almost unlimited opportunities provided. Examples such as these will be duplicated many times over with real estate men, building and loan associations and other bodies all taking an active part in helping to swell the volume of work. According to I. Friedlander of Houston, Tex., chairman of the Home Building and Home Owning Committee of the United States Building and Loan League, building and loan associations will make more modernizing loans, both by number and volume, than any other type of institution during the coming fall and winter. In a study of modernizing loans made last summer before the Housing Act went into effect, the committee found that carpentry work accounted for the highest volume of expenditure. A tabulation of the various types of work financed by the summer modernizing loans of the building and loan associations is as



EXHIBIT A. The mortgage was foreclosed on this old house and the holder of the second mortgage stood to take a loss.



EXHIBIT A AFTER MODERNIZING. Holder of the second mortgage bought the first mortgage and spent \$1,000 to modernize house, as shown above. He then sold the property for enough to get back his entire investment as well as the amount spent for modernizing.

follows according to the Building and Loan League study:

Carpentry work.....	\$2,829,598
Painting	1,216,841
Interior decorating.....	1,104,856
Masonry work.....	795,355
Roofing	644,572
Electrical	320,964
Cement work.....	237,459
Plastering	217,797
Plumbing	156,939
Flooring	144,609
Landscaping	133,161
Heating	126,093
Sheet metal.....	70,540

Reports of numerous contractors and builders show that real estate firms and building and loan associations are in many cases productive of a good volume of work in their communities. One contractor in a Chicago suburb makes it a practice to keep closely in touch with all such groups, sending business their way when he can, and in return providing a reliable service which is very valuable to the local institutions.

The value of before and after photographs of the type shown by Woodbury is very great. Every contractor should carry a kit of such illustrations, not for the purpose of proposing a stock procedure but to convince doubting property owners that remarkable improvements can be made, and to offer possible suggestions that might be applied to their property.

In Exhibit A, the removal of the old porch and the carrying of the new gable front in a straight line of pleasing proportions was a good move. The attractively styled windows punctuating the new stucco front offer suggestions that would be fully applicable to many other old houses of this type. Architecturally, Exhibit B is not as effective as A, but nevertheless the old structure was sufficiently improved to make a striking contrast. Building in the garage was a helpful idea in this case.

While modernizing drives and the attendant publicity of the National Housing Act are expected to bring out

a large volume of business voluntarily, the most sustained and biggest volume will come from the selling efforts of the contractors, builders and dealers whom Administrator Moffett has designated as "key men" in the program. In making calls and developing such business, the use of before and after pictures can be made extremely helpful. In addition, simple sketches can be made picturing for the home owner the suggested changes. Where the contractor himself cannot make such sketches, he should employ the services of someone who can.

Practically every builder has a file of attractive home exteriors saved for the day when he will be once more engaged in new home construction work. This file can now be well used in suggesting modernizing work, for the details planned for the new structure are equally applicable to old. With 16,000,000 homes in the United States in need of modernization, as Administrator Moffett reports, this market is big enough to keep the builder who specializes in this work busy for a long time.



EXHIBIT B. Acquired through foreclosure and ordered torn down. Instead, modernizing was decided upon, with results shown below.



EXHIBIT B AFTER MODERNIZING. The work of modernization prevented a loss and returned the investment to the building and loan association owners, and rendered a profit on the additional expenditure for modernizing.



1—Laying masonry walls and lintels.



2—Placing precast concrete joists.

8 Steps in Constructing a C

THE eight construction photographs shown above and below were taken on a home renovizing job in Glen Ellyn, Ill., performed by William A. Rose, contractor. They illustrate a number of important points in connection with modernization work under the National Housing Act.

Most home improvement jobs have to be sold, and in doing constructive selling, the contractor who offers the best in firesafe, permanent construction, low cost, and maximum use of the additional floor space provided, as was done on this job, gains an advantage that leads to a sale.

The owner of this home in Glen Ellyn wanted a new wing. The construction which sold him consisted of a concrete block foundation, precast joists and a two-inch concrete floor slab recommended to give a fully firesafe and rigid job. The eight steps involved in the work, as illustrated above, are explained as follows:

1. Concrete masonry walls and precast lintels are laid up straight and true.

2. Placing concrete joists, which are handled easily

by two men.

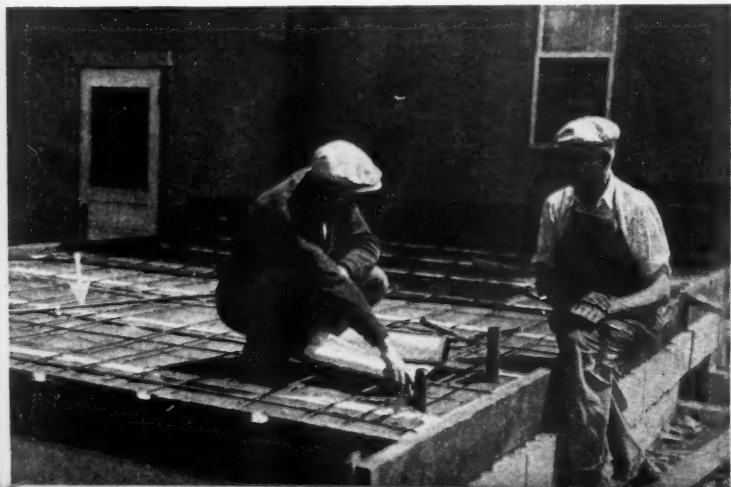
3. Showing all joists in correct position, with precast concrete end bridging units set in position on foundation wall at one end.

4. General view showing how forms are built. (2) Temporary spacers wedged to joists at mid-span, (3) 2x6 spreaders placed between joists about 3 ft. on centers, (4) sheathing laid on the spreaders, (5) waterproof building paper laid on the sheathing.

DRY BASEMENTS

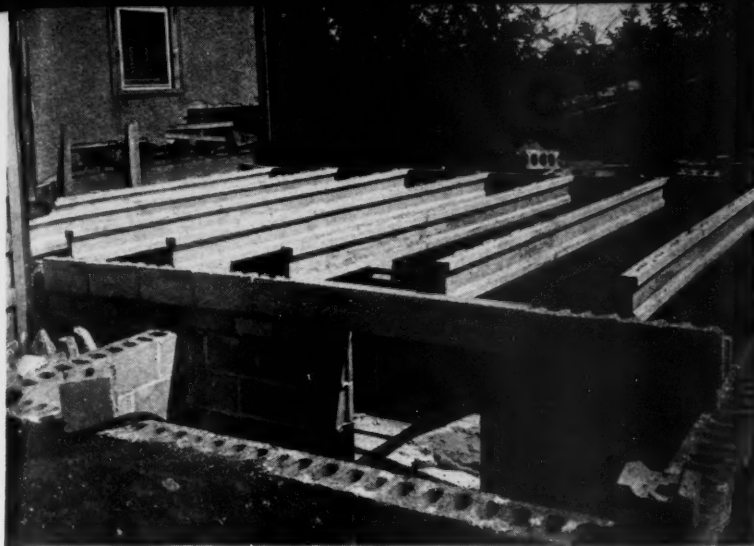
MANY contractors report that foundation, porch and step repairs form a large part of the inquiries of homeowners. American Builder will be glad to supply readers with technical information on concrete work of all kinds.

5—Completing floor forms.

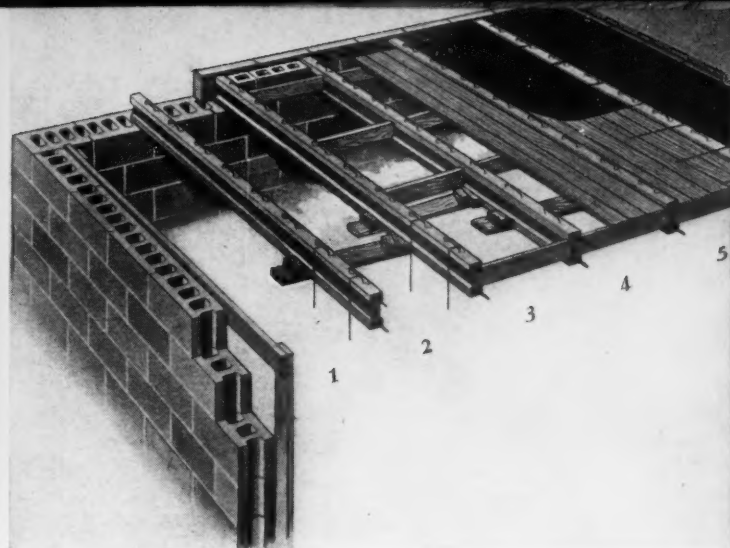


6—Placing the concrete.





3—Joists in position ready for bracing.



4—Over-all view of joist construction.

a Concrete Joist Addition

5. Box openings being placed for service connections. Arrow shows electrical conduit in place.

6. Reinforcement in place consisting of $\frac{1}{4}$ in. round bars on 18-in. centers parallel to joists and 10-in. on centers across joists. Casting $2\frac{1}{2}$ -in. slab (Slab thickness should be 2 in. for joists spacing up to 27 in., $2\frac{1}{2}$ in. when spaced 27 to 30 in.)

7. Casting of slab completed, leveling sleepers to take finished wood floor.

8. Various stages in laying of wood floor, matching floor in rest of house.

Interest in precast joists goes beyond the ease of construction to include sales advantages such as a concrete basement and first floor, fire protection, insurance against sagging, cracking, etc., immunity to termites and rot—at little extra cost.

The idea of fixing up a room in the basement for recreation, lounging, etc., is gaining in popularity and the precast joist helps the builder capitalize this interest. The Glen Ellyn renovizing contract included finishing the basement walls for a below-stairs "living room."

Cement paint was used. This attractive surface together with the architectural effect of the joists in the ceiling appealed to the owner. The ceiling also could be coated with oil or cement paint, stained, stenciled, or otherwise decorated to suit the owner.

Another sales point is the variety of effects obtainable in the floor upstairs. At no great difference in cost, the owner has a choice of colored concrete, concrete tile, wood, linoleum or all-over carpeting.

DRIVEWAYS AND WALKS

YARD improvements such as walks, driveways, garden pools, fences and many other types of work performed by builders can be financed under the National Housing Act. There is profit in this work.

7—Sleepers placed at right angles to joists.



8—Laying wood floor.



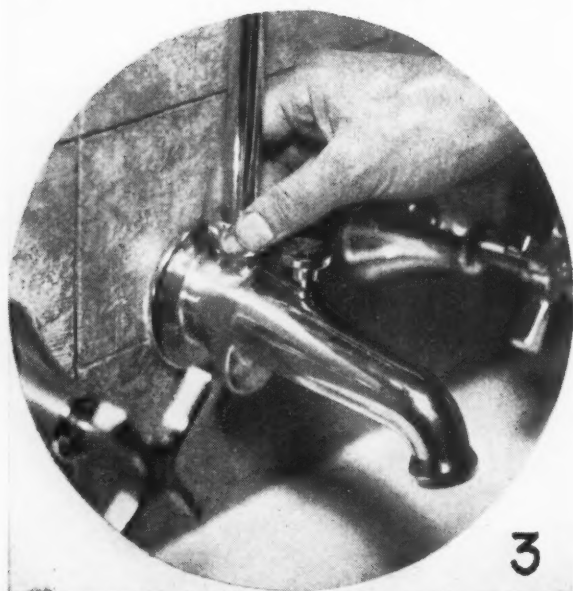
Modernize with a New Type Shower



1



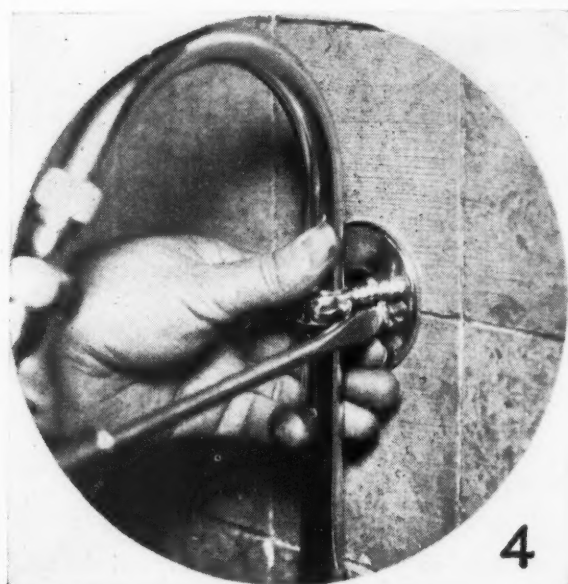
2



3

MODERNIZING the bathroom is one of the first steps many home owners will take under the National Housing Act. Frequently the installation of a shower is the first step in this procedure. Hardly any modern home is today without a shower. New type showers are placed so that they strike the bather from the side. New type heads only $2\frac{1}{4}$ inches in diameter are used, which save water and are easy to clean.

Five steps in the installation of one of the new shower devices are shown as follows: (1) remove old faucets; (2) screw on new faucets; (3) attach riser pipe; (4) riser pipe is easily attached to wall; (5) modern shower in place.



4



5



D. C. Builders Feature Steel Framing

Miller Brothers, of Washington, first to offer homes of brick and stone with floors and bearing partitions of Stran-Steel—Find buyers recognize advantages; present program calls for 17 houses of this type



Behind the Plaster

—you will find the reason for the continued prestige of Miller-Built Homes. Solid masonry walls, water-proofed and insulated. Stran-Steel construction and concrete floors. In a word—the finest materials skillfully assembled.

You are invited to inspect the homes now being built on the 4900 block of Quebec Street. There you can see the materials and methods which create a Miller-Built Home.

Gas Conveniences by the Washington Gas Light Company

W. C. & A. N. MILLER
1119 17th St.
DI. 4464

WHILE Mr. Moffett and other officials of the Housing Administration at Washington are wrestling with the problems of home financing and how to get building started, a firm of Washington home builders is going right ahead building good homes and selling them to the steady stream of immigrants to the Nation's Capital. W. C. and A. N. Miller, brothers, for twenty years readers of *American Builder*, developers of Wesley Heights, Spring Valley and Westerleigh (Washington), are the builders referred to. They have an enviable reputation for planning and building good homes and for successfully developing the most beautiful residential sections of Washington. Their "conversion" early last spring to a radically new idea in house construction and their experience with it are worth recording.

To Mr. Frank Main, structural engineer of the Stran-Steel Corporation, Detroit, goes the credit for convincing the Millers that the nailable steel studs and joists used so effectively in the "Good Housekeeping" house at the Century of Progress would make a practical contribution to Miller quality if used for all bearing partitions and first and second floor framing in connection with the Miller standard masonry walls.

The attitude of the Miller organization up to that time, like that of the other Washington builders, was related by Mr. W. C. Miller in an interview that appeared in the "Washington Evening Star" of Aug. 16.

"Competitive efforts at fashioning the home of tomorrow from the talents and materials of today," he said, "thus far had served mainly to give Washington operative builders headaches—and by holding prices to higher levels, to dismay would-be purchasers of moderate means. The faith of the public in its response to new ideas in home construction, however, now promises to gain its long-merited reward. A new era in home construction appears at hand.

"There is indicated neither revolutionary change in design nor sensational slash in cost. The home of tomorrow will not be the freakish two-decked, glass enclosed, pre-fabricated

Dignified advertising in local newspapers stresses quality construction.

pill-box latterly so much pictured. It will continue to afford full scope to individual preference and, as such, can scarcely lend itself to overnight construction at a fraction of the expense normally involved in home building; yet it seemingly offers the utmost in storm, fire and rust protection at a substantial savings."

Since the Washington market is so thoroughly sold on outside walls of solid brick or stone, the Miller organization decided to lay out its current program to use this customary style of exterior construction plus first and second floors and all bearing partitions of steel. This would give them, Messrs. Miller believed, a rigid, non-

shrinking frame that would prevent settlement cracks and keep door openings square; and furthermore the steel supported concrete first and second floors would interpose two firestops in each house.

They figured that this change in their standard specification would give them increased quality at little extra cost and could be effectively demonstrated to prospective clients for contract building, and to prospective home buyers. They accordingly went ahead with an initial order of steel for 10 houses, four of them to be built on separate wooded sites in "Spring Valley" and five to be used to develop the one side of a new street in "Wester-

MILLER REPUTATION RESTS ON THESE SPECIFICATIONS.

CONCRETE FOOTINGS 12" deep and 6" wider than the wall on each side. Mix 1:2½:5.

CONCRETE CELLAR FLOORS pour 4" thick. **BRICK** for basement walls and chimney hard burned arch brick. Mortar of one part portland cement, three parts clean sharp sand, and 10% hydrated lime.

FIRE CLAY flue linings, line entire height of flues. Where a flue is built with an offset, a burlap bag filled with excelsior, and tightly fitting the flue, is inserted below the first offset and drawn up as each few sections of flue lining are installed.

MORTAR for all rubble stone work one part portland cement to 3 parts gravelled sand. Walls laid solid.

A SLATE COURSE laid on top of footings under all rubble stone walls. A second course of slate laid in all rubble walls 6" above surface of the ground. Slate 3/16" thick, full width of walls; joints overlap.

PARGING—The exterior face of basement walls below grade parged as the walls are carried up. Parging applied a full ¾" thick and a mixture of 1 part cement to 1½ parts clean sand. Parging brought to a smooth finish by a wood float.

A HEAVY COAT of asphalt pitch sprayed on the cement parging of all exterior basement walls below grade, and on the interior face of all stone or brick walls which are furred.

STRUCTURAL STEEL for lintels cleaned of all scale, dirt and rust; and given one shop coat. Steel lintels have 6" bearing on walls.

STEEL SASH "Fenwrought" or equal screen casement sash. Casements equipped with wood surrounds of clear heart California redwood. Hinged leaves hung on heavy extension (cleaning) hinges. Glazed with D.S.A. Libby-Owens. Glass bedded in putty and face puttied.

SCREENS for steel sash.

FRAMING—All framing lumber of Long-Bell fir.

ALL LEVELING OF JOISTS, beams or girders on masonry done with slate or similar material, as the use of wood shims or wedges not allowed.

WHEN ATTIC JOISTS run parallel with rafters they are thoroughly spiked to same. When attic joists run at right angles to rafters, 2"x4" tie every 4' from rafter end to purlin studs, spiked to tops of joists and to studs and rafters.

STUDS DOUBLED around all openings on the second floor. Over all openings in wood bearing partitions place two 2"x6" for openings up to 3'; two 2"x8" for openings 3' to 5'. Any wider openings framed as noted on plans.

SHEATHING for all roofs and stud walls ¾" T.&G. N.C. pine; not less than 6" nor more than 8" wide; dressed to a uniform thickness and laid horizontally. Sheathing driven close with joints broken on solid bearing only. All sheathing double nailed at each bearing using 10d nails; one in the blind nailing and one in the face nailing.

TONGUE AND GROOVE sub-flooring of No. 4 N.C. pine laid diagonally at 45 degrees on sleepers of first and second floors. Sub-flooring securely face nailed with two 10d nails at every bearing. Nailing doubled where double headers or double bearings occur. Sub-flooring joints staggered and well distributed, and made over bearings only.

STEEL FRAMING—The first and second floor joists and first floor bearing partitions framed of Stran-Steel. Details constructed in accordance with the Stran-Steel catalog, No. A1A, File No. 13G. The steel joists bridged at intervals of 6' with a metal strip, bridging drawn tight and securely nailed to each joist at top and bottom. Over the joists a channel type metal lath, weighing 4 pounds per square yard, is placed and

securely fastened. Over this lath 2" of 1:2:4 concrete poured. 2 x 3 bevelled edge Georgia pine sleepers, creosoted, imbedded to a depth of 1".

MILLWORK delivered dry and protected at all times from injury or dampness. Millwork not installed until the plastering is completed and dry.

INTERIOR DOORS 5 cross panel 1-¾" stock doors.

NARROW TRIM for doors one piece, mitred, ¾"x1-¾", or 1-1/16"x2-¼".

STOOLS AND APRONS provided for all steel sash in one piece unless otherwise detailed. Plaster jambs for steel sash.

DRESSERS stock type or of stock units assembled as per detail elevations on drawings.

MANTELS furnished according to details on drawings.

STAIRS—Main stairs furnished by the mill. 1-1/16" oak treads with 1-1/16" nosing and 9/16"x¾" scotia, rebated into tread. Risers ¾" oak with treads rebated into same.

DONLEY DAMPERS for fireplaces.

FINISH HARDWARE P. & F. Corbin manufacture. Hardware throughout the first and second floors polished brass unless otherwise noted. Bathrooms chromium plated over brass.

THREE BUTTS furnished for the main entrance. Ball bearing pivot hinges for double acting doors.

CYLINDER ENTRANCE DOOR LOCK for main entrance, and for kitchen doors. All interior doors have Schlage locks.

WATER SERVICE supply from main to house ¾" copper tubing. All pipe and fittings inside house copper tubing.

RISERS to bathrooms not less than ¾" inside diameter.

HEATING—Houses heated by two pipe hot water plant closed system. All risers concealed. **RADIATORS** built into walls.

GAS BURNER—Bryant Gas Fired Hot Water Boiler completely equipped with Robertshaw Control, Thermostatic Safety Pilot, Solenoid Valve, Labeled Shut-off, Gas Pressure Regulator, Snap Valve, Drain Cocks, Combined Altitude Gauge and Thermometer.

RIGID CONDUIT used for all wiring in basement. BX cables used for all wiring above basement where approved. BX in all outside walls where required. Conduits and cables kept at least 6" away from all hot water pipes.

NO MORE than ten outlets placed in one circuit.

SWITCHES Toggle Hubbell, or equal.

RECEPTACLES Hubbell bakelite face, or equal, set 12" above finished floor.

Telephone—The rigid conduits and outlet boxes for telephone, wiring the same as specified for electric wiring.

Bells—Push at main entrance and service entrance, and buzzer in dining room.

PLASTER—The plastering on first and second floors applied on Celotex lath on all walls and partitions.

BEDROOM closets plastered.

FINISHED ROOMS in the basements, basement baths, and all basement ceilings plastered on an approved plaster board.

ALL EXTERNAL ANGLES reinforced with galvanized steel corner beads.

ALL INTERIOR ANGLES of walls and ceilings have a strip of black diamond expanded metal lath nailed on lengthwise where solid wood forms base for lath.

PATENT HARD-WALL plaster applied in two coats.

EXTERIOR STUCCO—All frame walls noted as stucco covered with Armco metal lath; self furring.

STUCCO of portland cement and clean sharp sand. Scratch coat of two volumes of clean coarse sand and one volume of portland cement applied; hair or fibre added to this mixture. Scratch coat also applied so as to completely fill the space back of metal lath, forced well into all crevices, covering the outside face of metal lath; and well scratched to provide bond for the succeeding coat.

SECOND COAT composed of three volumes of clean, coarse sand and one volume of portland cement.

COLOR AND TEXTURE of finish coat selected by the superintendent.

SHEET METAL—All gutters and downspouts 16 oz. hard copper. Downspouts square, corrugated; fitted with elbows at head, and turnouts at bottom. Secured to wall with copper fasteners.

ALL FLASHING of 14 oz. copper.

GALVANIZED IRON fireproofing on garage face of door to basement.

ROOFS over the porches of 25 lb. tin, laid flat seam over resin sized paper. Painted on the underside before laying.

ALL WINDOW AND DOOR openings except in basement supplied with bronze screen wire on wood stile.

TILE WORK—The cement base to receive the wall tile applied on Black Diamond lath, ½" diamond mesh, 3.4 lbs. per sq. yd.

THE BED for all tile floors laid on a concrete foundation 3" thick, and composed of 1 part cement, 2-½ parts sand and 5 parts coarse aggregate.

ALL BATHS on second floor tile wainscoted to a height of 6'6" around bathtubs and shower stalls. The remainder of the walls have a 6" covered base only.

PAINTING—Where exterior woodwork is painted, it receives three coats of lead and oil in colors selected by the superintendent. The woodwork in basements receives two coats of lead and oil. All other interior woodwork receives three coats of enamel undercoater and one coat of approved enamel.

SLATE ROOF—Main roof and the sides of the dormer covered with slate; standard thickness, over felt weighing 16 lbs. to the square. Copper nails; 14 oz. copper flashing.

FINISHED FLOOR for first and second floor Long-Bell clear plain white oak flooring, 13/16" x2-½" face.

BETWEEN FLOOR and sub-flooring heavy building paper laid.

LINOLEUM—Armstrong's A gauge straight line or embossed linoleum laid in kitchen. A layer of deadening felt first cemented to hard pine floor. Linoleum cemented to felt.

INSULATION—Second floor ceiling and all exterior frame walls covered with 4" Rockwool Bats.

GARAGE DOORS—Garage doors of overhead type.

PLUMBING FIXTURES—Basement: two part cement laundry tray.

SERVANTS' BATH—"Standard" Modernus Wash-down Closet; "Standard" 4½" Essex tub complete; "Standard" 17x19" enameled lavatory, Chromard faucets.

KITCHEN—"Standard" 60" enameled cast iron double drainboard cabinet sink.

BATH NO. 1—"Standard" 5½" enameled cast iron Pembroke recess tub, Chromard metal trim combination tub, and shower fitting; "Standard" 22½x18" Companion Vitreous China lavatory complete with Chromard metal lever handle; "Standard" Compact Vitreous China silent action closet combination with Regal white seat and cover.

BATH NO. 2—Same tub as Bath No. 1, except 5'.

leigh." (Pictured on page 35)

These houses are individually designed; each stands on 100 feet of frontage; and each is distinctive in both appearance and workmanship. When photographed for this report, on Sept. 14, three of the five were marked "Sold" and excavations were being made across the street for seven more houses of this same general type to be built this fall. And several of these excavations already carried that cheerful "Sold" sign, proving the sales appeal which these Miller homes enjoy.

Details of the specifications used are given in the accompanying tabulation. Several points here are worthy of study by other builders, since they represent successful practice in meeting such common problems as damp cellars, faulty flues, sagging floors, etc.

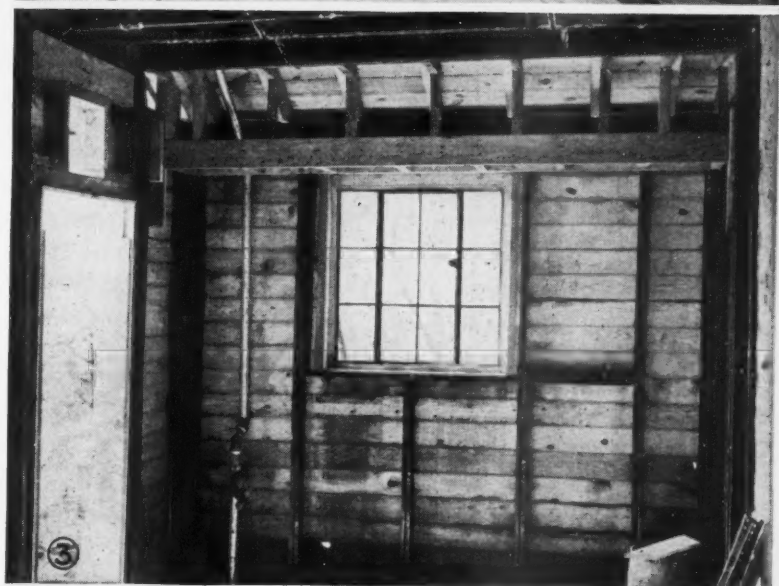
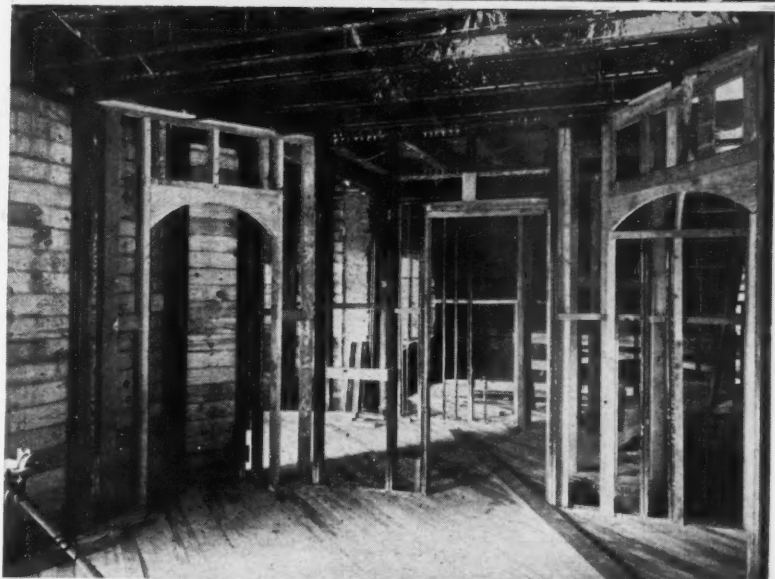
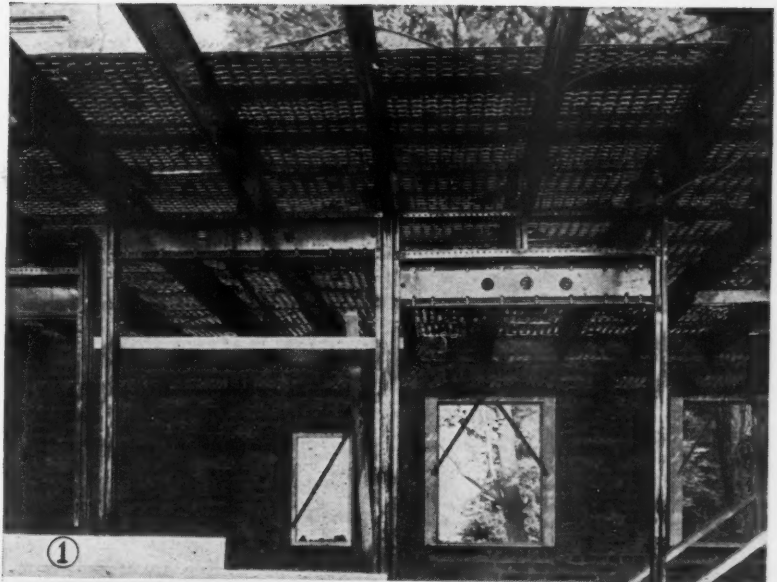
It is the custom of the Miller organization to handle all construction with its own men, sub-letting only the mechanical trades and the masonry. The architectural design of all houses is closely supervised and has to be in keeping with the hundreds of fine properties already erected and landscaped. By having several new houses under construction at all times, prospective clients or purchasers can examine the inner construction used by the Millers; and this was felt to be one of the outstanding advantages of the steel framing of floors and bearing partitions. When demonstrated to prospects, it proved immediately convincing so that sales have been helped and confidence built up.

In describing further their use of this steel framing material which carpenters erect, Mr. W. C. Miller said, "These steel studs and joists, light and readily adjustable to all lengths and purposes, are riveted at the factory, with nailing grooves to which the carpenter can attach flooring, siding, roofing and even wall boards and lathing, using only the customary tools of his trade. Precisely the same methods of carpentry are employed, even to the blue prints. In fact, the inventor of this form of steel framework was a Detroit contracting carpenter.

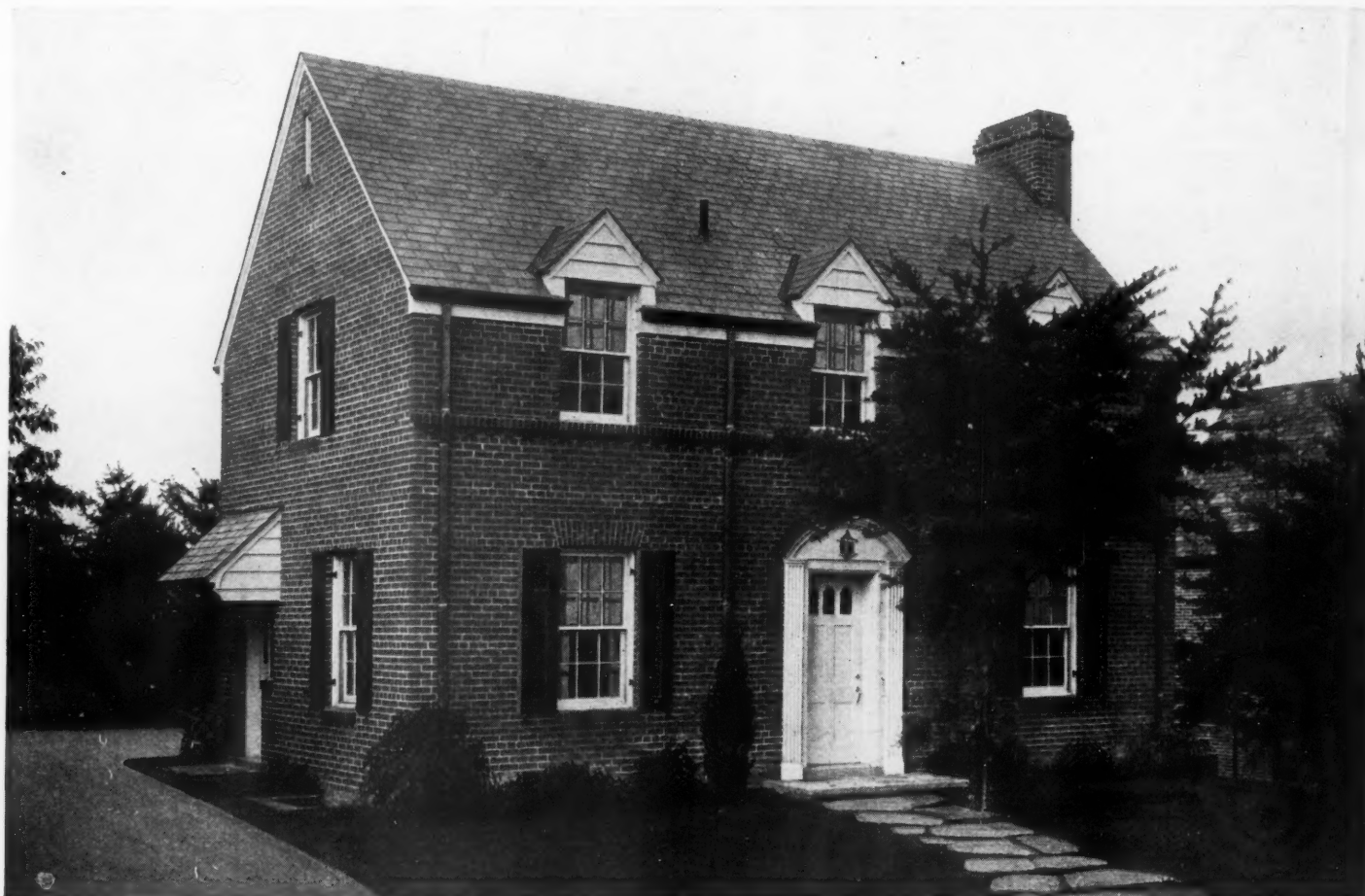
"The nails, driven between the riveted steel plates, follow set curves and are automatically clinched and locked. Once driven they are there to stay until the house wrecker removes them, and this functionary is in for some rough times.

"While this new material is equally adaptable to the construction of shops, factories and apartments, its use in Washington thus far has been confined to home building. All builders, of course, have long used steel in various forms—in roofing, lathing, trim, window sash and the like, but this is the first general use of steel framework in house construction. We regard it an outstanding advance in the science of home building."

On the following pages are presented photograph and construction drawings of one of the W. C. and A. N. Miller homes built on Upton Street, "Westerleigh," and illustrating the use of steel nailing joists and studs for floors and bearing partitions in connection with solid brick outside walls.



How Miller Brothers of Washington, D. C., are using Stran-Steel for first and second floors and for bearing partitions in houses of brick and stone. 1—A typical straight bearing partition with door openings; 2—Steel carries the load while wood studs frame interior details; 3—Steel supports outside wood wall while 2 by 4's frame ornamental cornice.



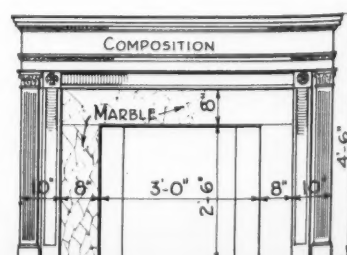
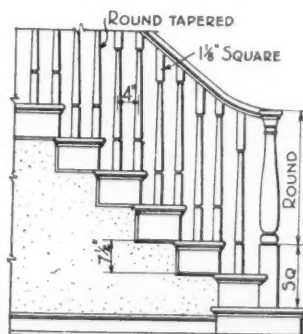
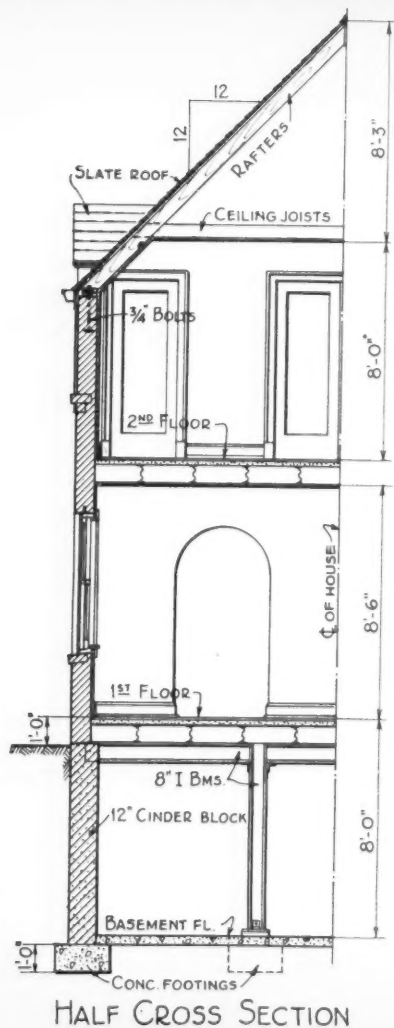
1934 Washington, D. C., Home

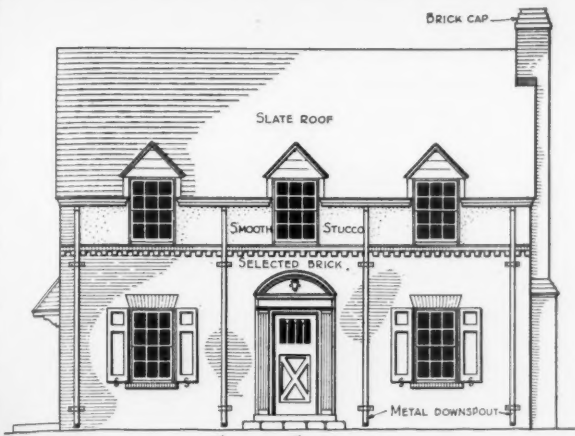
Featuring Steel Framed Floors
and Load Bearing Partitions

Built By W. C. & A. N. MILLER
LOUIS R. MOSS, Architect

This home design which the Miller organization calls the "Belfast" is marked by charming simplicity of exterior and by cheerful comfort and adequacy inside—a six-room, two-bath house with attached garage. Construction is according to Miller Brothers' new specification which features Stran-Steel framing for floors and bearing partitions in connection with outside walls of solid brick or stone.

Cost Key, 1.772-130-680-30-20-14

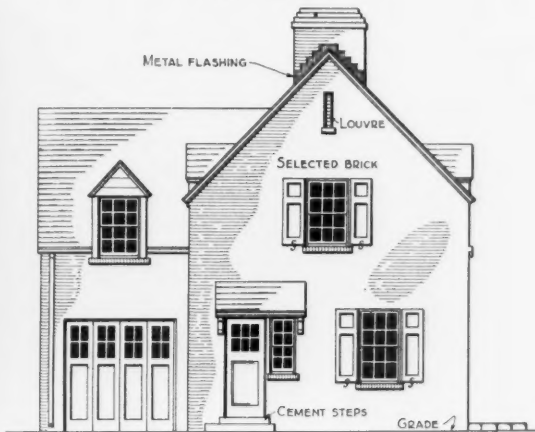




FRONT ELEVATION



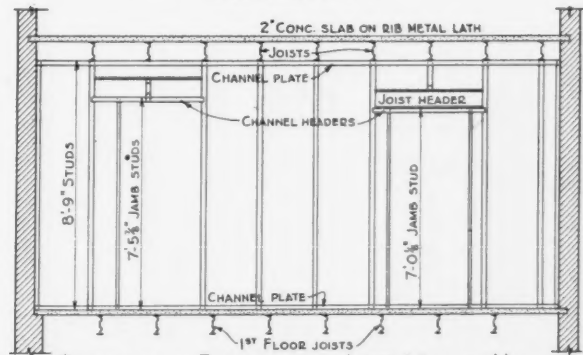
SIDE ELEVATION



SIDE ELEVATION

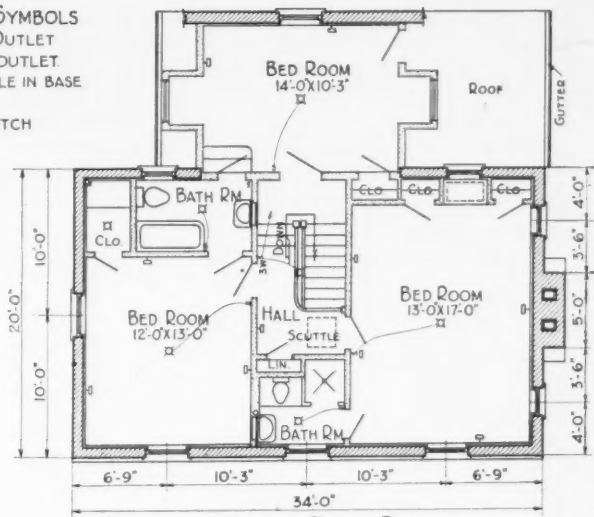


REAR ELEVATION



STRUCTURAL ELEVATION OF LEFT WALL OF HALL

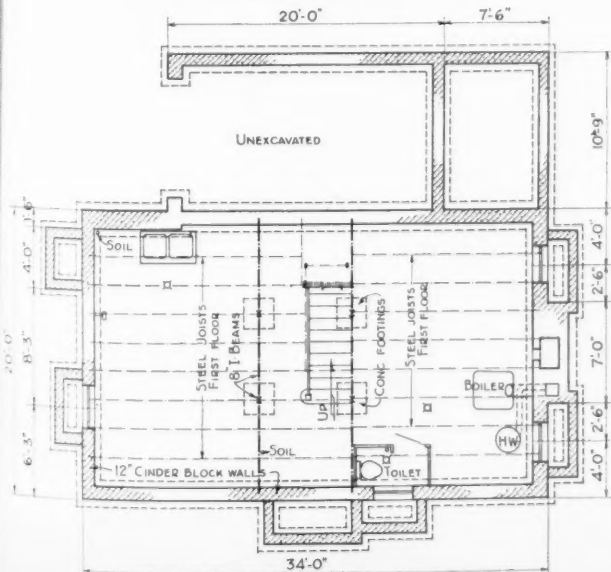
- ELECTRIC SYMBOLS
- CEILING OUTLET
 - ⊞ BRACKET OUTLET
 - ⊞ RECEPTACLE IN BASE
 - ⊞ SWITCH
 - ⊞ 3 WAY SWITCH



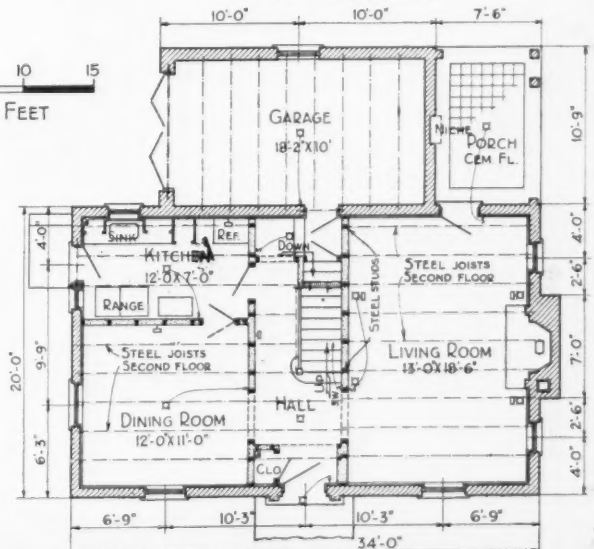
SECOND FLOOR PLAN



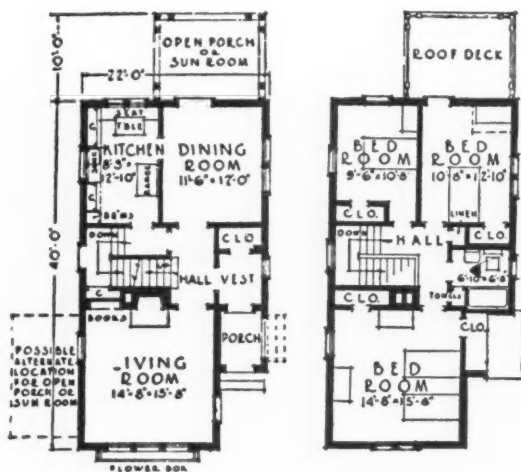
SCALE IN FEET



BASEMENT PLAN



FIRST FLOOR PLAN



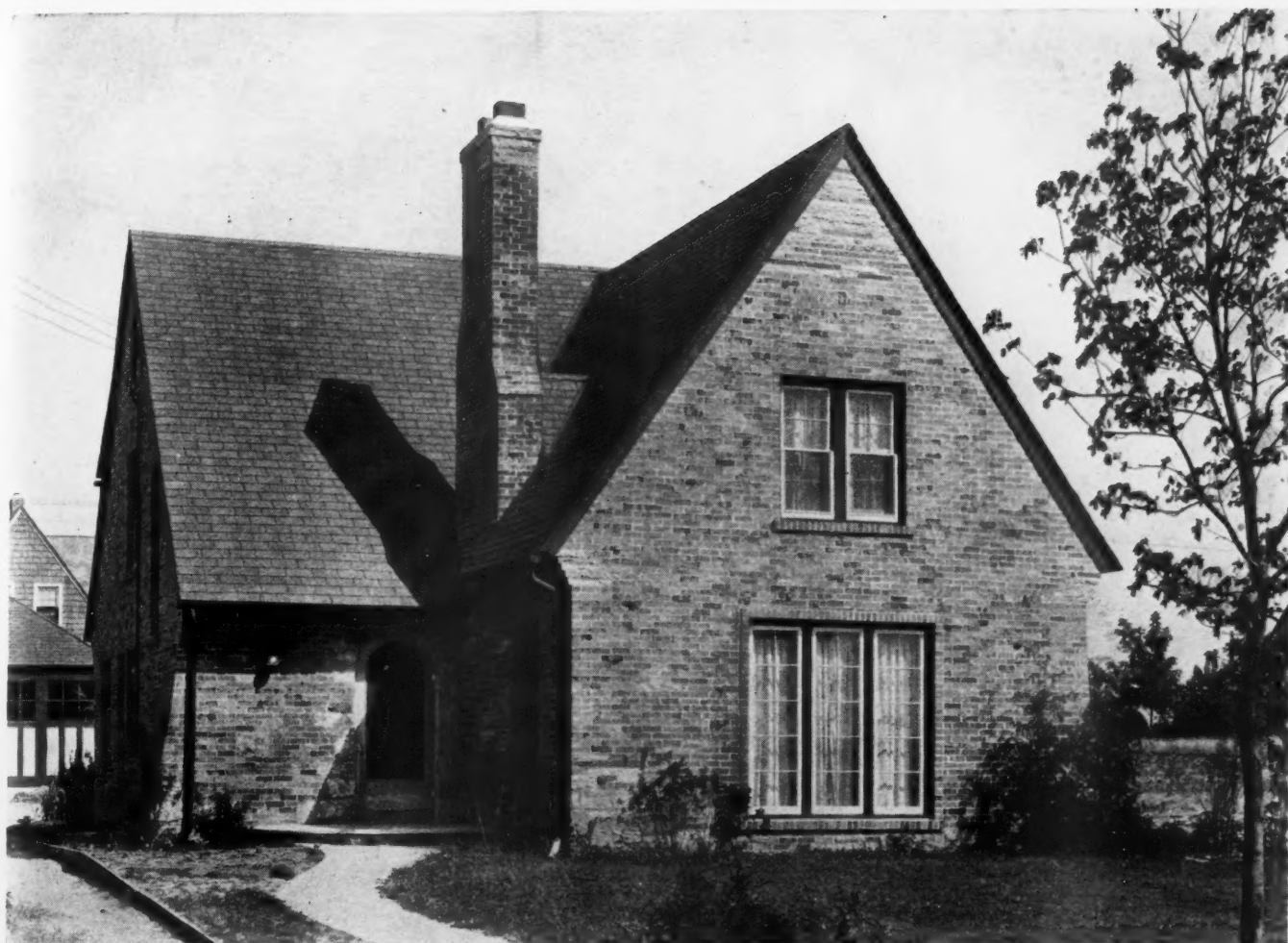
Cost Key is 1.691-124-768-33-22-17.

Well Planned To Fit Narrow Lot

THIS VERSATILE HOUSE fits either a very wide or a very narrow lot, and is also suitable for a corner lot. Every room has at least two outside exposures.

THE EXTERIOR of stucco and shingles with attractive shutters offers a good suggestion for modernizing an old house. The treatment of the roof gables is good. The plan is very efficient with practically no waste space. Architects Small House Service Bureau design No. 6-A-78.

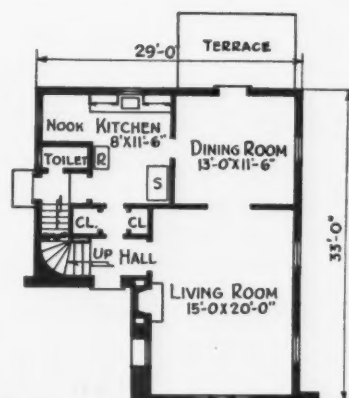




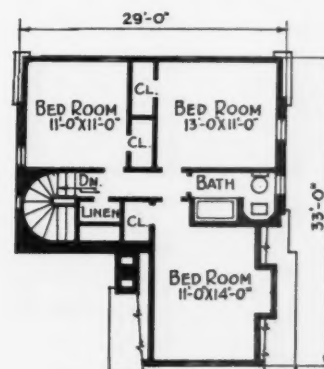
**Built "For Sale" in 1934
Sold for \$8,700 with Lot**

HARRY A. HURNI, CONTRACTOR, of Kalamazoo designed and built this attractive home, completing it Mar. 1, 1934. It sold immediately. The house has concrete first floor, steel interior trim, brick veneer exterior, Balsam Wool insulation. It is substantial, well planned, economically built.

Cost Key is 1.170-
94.478-21-14-10.



FIRST FLOOR PLAN



SECOND FLOOR PLAN



STAIR DETAIL of the E. E. Holmes residence, Palos Verdes Estates, Calif., designed by H. Roy Kelley, architect.

In Cypress Trees Of Old California

THIS ATTRACTIVE CALIFORNIA HOME is located in Palos Verdes Estates, a subdivision near Los Angeles, and is a splendid example of restrained Spanish architecture done in a pleasing, practical manner. H. Roy Kelley of Los Angeles is the architect.

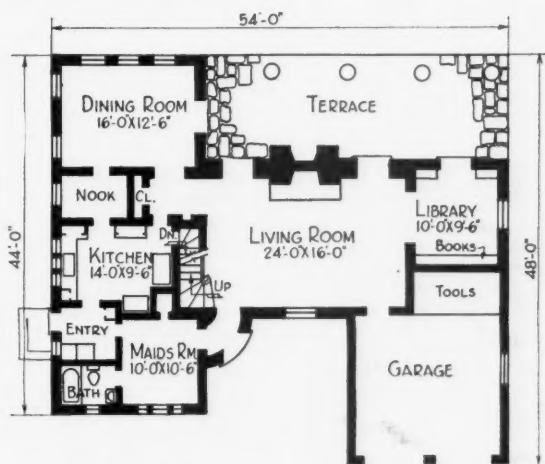
FLOOR PLANS OF THIS HOUSE show how successfully the architect has gotten away from a conventional plan and produced an arrangement that fits the site, has livability and convenience. The entrance detail is well handled and pleasing. Floor plans are shown on opposite page.



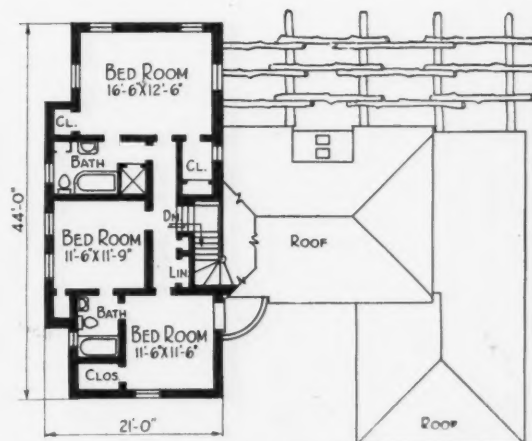


Good Southern Home with Planned Comfort Features

THE STUCCO HOME ABOVE was planned by Architect John T. Collins of Biloxi, Miss., for location at the end of a court, and for maximum comfort in a Southern climate. Study of the plans will show how this desirable end has been attained. The front porch is cool and pleasant, the garage conveniently located, the porch at rear a necessary feature in the South. Practically all the rooms have cross ventilation. Cost Key is 1.488-177-(1155)-(49)-22-20.

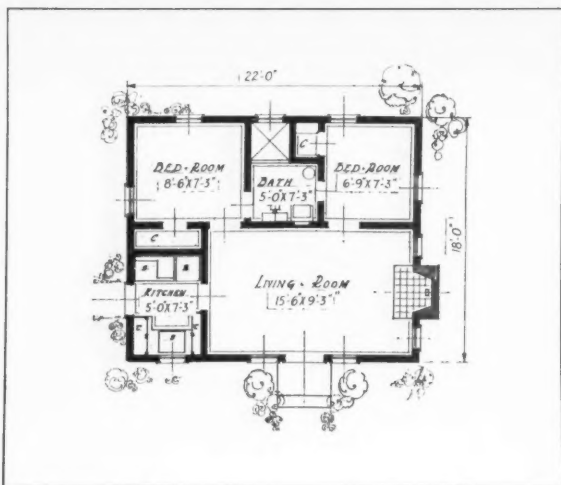


FIRST FLOOR PLAN



SECOND FLOOR PLAN

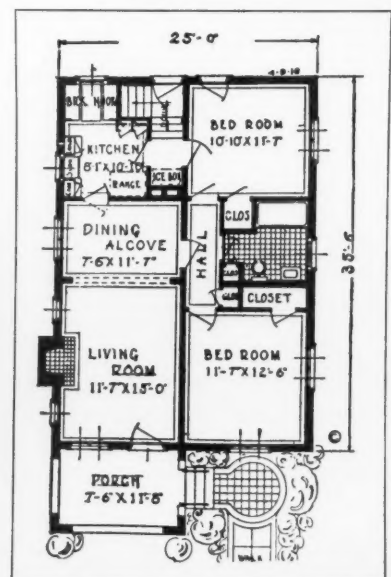
FLOOR PLANS of E. E. Holmes house designed by H. Roy Kelley; illustrated on opposite page.



THERE IS UNUSUAL ARCHITECTURAL CHARM in the small cottage shown above, designed by F. M. Smith, Jr., of the firm of Smith & Carroll, Seattle, Wash. The floor plan is simple and practical, the exterior details well handled. Cost Key is .690-96-540-24-10-8.

Northwest to Southwest

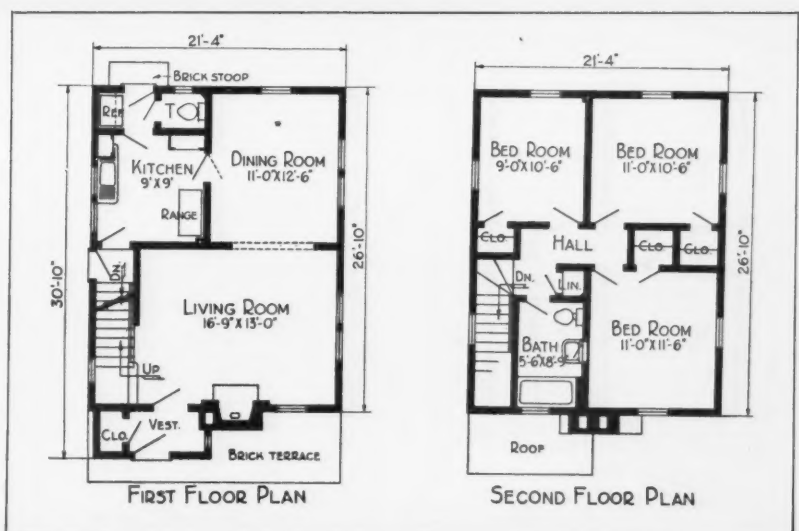
THE LITTLE HOUSE BELOW is a popular type in the Southwest which, in the amount of living space and number of conveniences, is equal to many larger size homes. It is Design No. 4-B-16 of the Architects' Small House Service Bureau. Cost Key is 1.084-121-(887)-(36)-12-13.





Small Colonial Good Anywhere

BUILT THIS YEAR by The Homeland Co., community builders of New York, this Colonial house is a good example of modern design and construction in an inexpensive home. Floor plans show all needed accommodations for the average family. Outside terrace is well handled. The architecture of the exterior is simple and yet very attractive, in keeping with the taste of home buyers today. The architect is William P. Cain. Cost Key is 1.353-104-614-27-18-10.



Compound Lumber Units Offer

G. R. MEYERCORD, well known industrialist, inventor and developer of decalcomania transfers, vitrolite structural glass and phemaloid plywood, has been concentrating of late on a material and method for rapid, low-cost home construction. His ideas are to be given practical test this fall in a small home to be erected at Grand Rapids, Mich., from plans by McNally and Quinn, architects.

The essential features of Mr. Meyercord's method are illustrated in the photos below and by the detail drawings on the next page. He uses 5-ply compound lumber panels for the outside walls, floors and roof; 3-ply for the inside partitions. These plywood panels, 3 feet wide, are combined with light steel studs and joists, set on 3 foot centers to provide necessary strength and also to lock the panels together.

Each panel is grooved all the way around on the edges (as illustrated in detail) to take the projecting flange of the light steel I-beam. The grooving is so designed that the outside joint is perfectly tight when panels are assembled; in fact, it is a mere hair line. Panels and I-beam are then made secure by face nailing

with small short nails driven through the wood and steel and into the wood again. Since the steel is held tight in its groove this nailing (surprisingly enough) is easily done.

For joints exposed to the weather, as in outside walls and roofs, a non-setting mastic is applied before the flange is inserted.

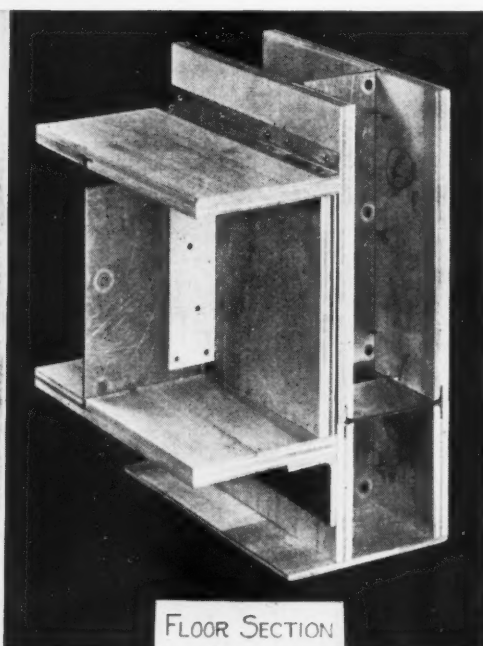
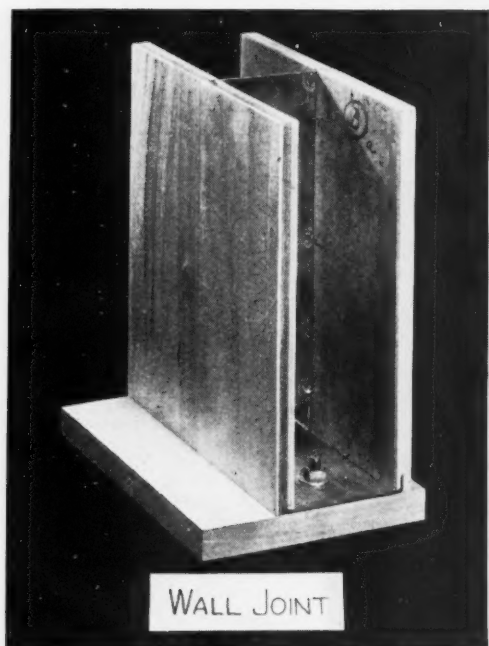
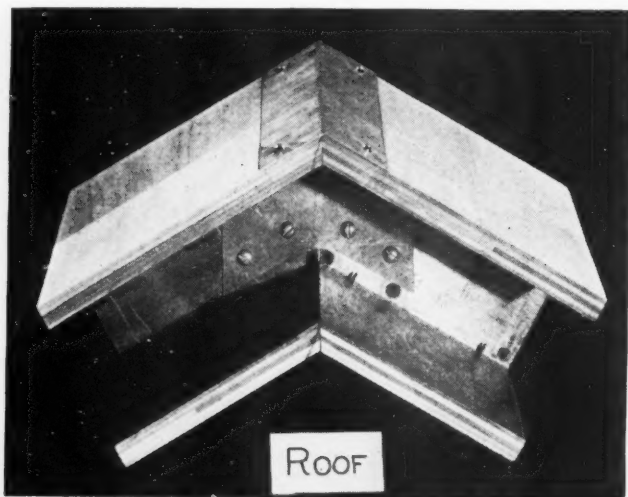
Wall studs are 20 gauge steel doubled, $2\frac{5}{8}$ inches wide for partitions and $4\frac{5}{8}$ inches wide for outside walls. Floors and (flat) roof joists are 18 gauge steel doubled, 9 inches wide, designed to support 40 pounds per square foot loading on 16 foot spans.

It is Mr. Meyercord's plan to furnish the grooved panels for this construction in 3 foot widths, story high. Their assembly into a completed house is then so simple and easy that a single day should be ample time to set up a fair size dwelling or other structure. The inside finish surfaces can be given any wood grain or other ornamental treatment desired; likewise the outside surfaces can be shop painted if desired. In reality then, here is a double wall construction that is complete, finished and ready for use the moment it is assembled on the job.

While these units will be of standard size, the total building design will not be standardized. In fact, architects will be encouraged to exercise their creative imaginations with the greatest freedom to evolve an endless variety of designs for this construction. The grooved panels can be carried in stock by lumber dealers and the light steel connectors quickly cut to order.

The compound lumber is made with moisture proof binder (phenol-formaldehyde resin) making it suitable for severe weather exposure.

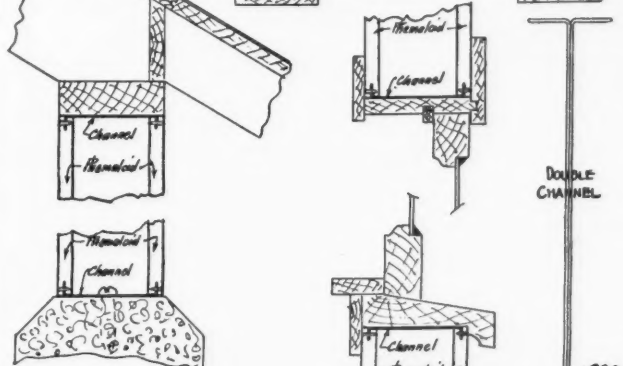
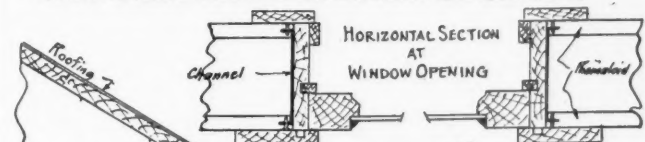
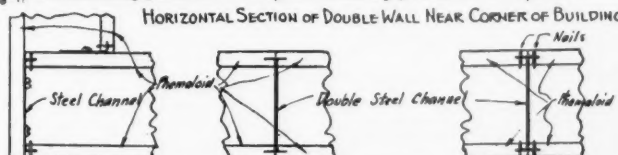
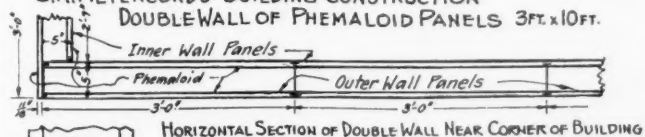
In assembling these units into a wall a plank is laid on the foundation, bolts projecting through. The steel sill channel, bored for these bolts, is fastened down and the erection of the grooved panels proceeds. Simple bolted connectors fasten the vertical studs every three feet to the sill channel. Floor construction can rest directly on the sill plank or on a bolted-on angle iron as shown in the model photograph below.



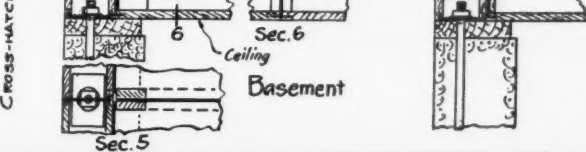
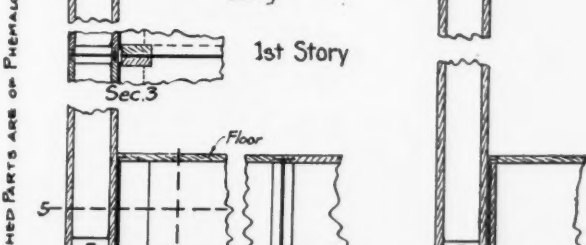
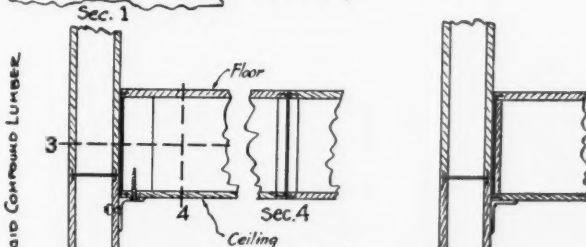
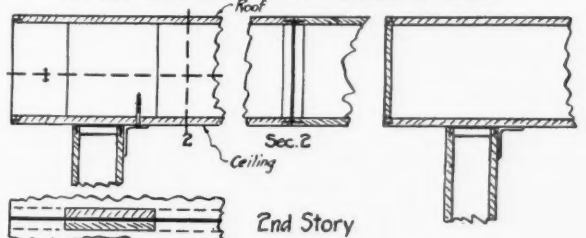
Sample sections of Meyercord's house construction using light steel I-beams for floor and wall to connect grooved plywood panels. Nails through the metal flanges lock the panel joints. Architect's details are shown on opposite page.

"Prefabricated House" Solution

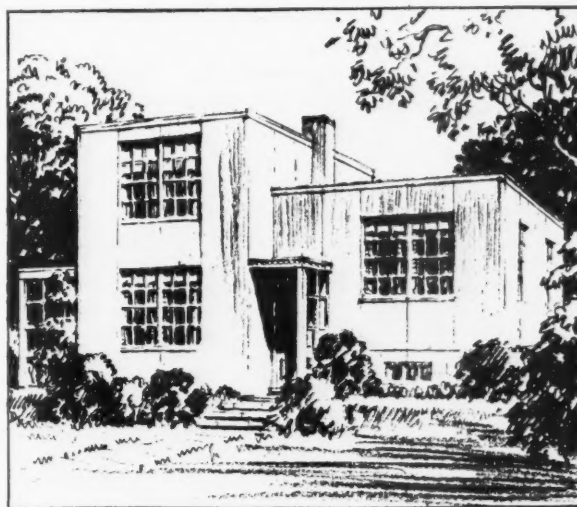
G.R. MEYERCORD'S BUILDING CONSTRUCTION
DOUBLE WALL OF PHEMALOID PANELS 3 FT. x 10 FT.



TYPICAL SECTIONS: WALL, FLOOR & ROOF

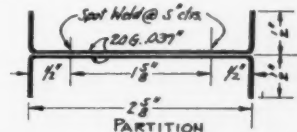
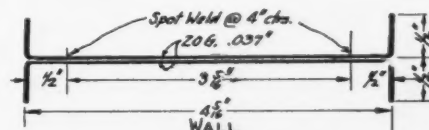


CROSS-HATCHED PARTS ARE OF PHEMALOID COMPOUND LUMBER

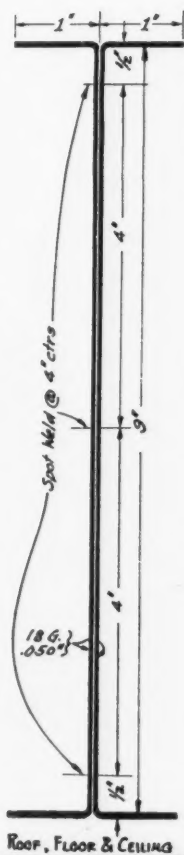
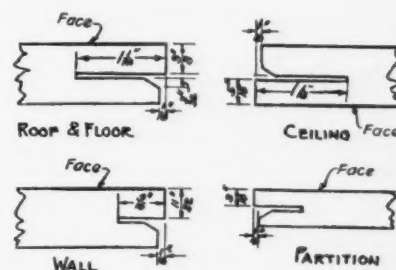


HOUSE OF
FABRICATED UNITS
TO BE ERECTED AT
GRAND RAPIDS, MICH.
McNALLY & QUINN
ARCHITECTS

PROVISIONAL SECTIONS OF TERN PLATE
I-BARS & OF PANEL EDGES



NOTE: Tern Plate Channels needed of each size,
also Half Channels of Partition size.



PRACTICAL JOB POINTERS

A READERS' EXCHANGE of tested ideas and methods, taken from their own building experience. Two dollars or a year's subscription to American Builder is paid for each item published. State business connection or trade.

Strengthening Weak Joists

ON page 52 of the August issue I notice an article on the strengthening of floor joists, by Mr. Froh, the idea being the additional of diagonal 1 x 4 members tightly fitted at top and securely nailed to the joists.

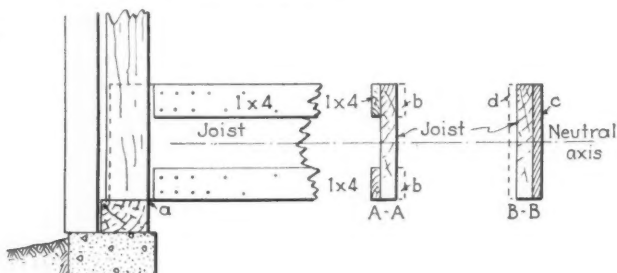
The method outlined and illustrated adds very little strength to the joist proper. The joist is only as strong as the weakest link, which in this case is the tension fibers at bottom of joist, center of span. The tension fibers have not been strengthened by the nailed on diagonal members. Consequently, no appreciable strength has been added to the joist.

As a rule any joist whose span in feet exceeds its depth in inches will have sufficient horizontal shear resistance along neutral axis. Consequently, when a sound joist is a trifle weak or exhibits excessive deflection, the top and bottom fibers need strengthening. This we can accomplish by adding and nailing on a continuous 1 x 4 near top and bottom on one side, as shown in the enclosed sketch. When extra reinforcing is needed the 1 x 4 strips are added both sides near top and near bottom. See Section A-A. Ordinarily the extra pieces (b), however, are not necessary.

Should the joist be weak in horizontal shear also, a full height continuous board is nailed to the side of joist as shown at (c). In extreme cases a full height continuous board (d) is added to the other side also. When these two full size one-inch boards, c and d, are added to a two-inch joist, the strength of the joist is practically doubled.

Practically all joists have sufficient so-called vertical shear strength near the supports and the reinforcing strips need not continue over the supports. See (a) enclosed sketch.

It is to be understood that sufficient nailing is always necessary, and the nails must be placed much closer together as they near the ends of the joists.—OSCAR G. KNECHT, Chief Building Inspector, San Diego, Calif.

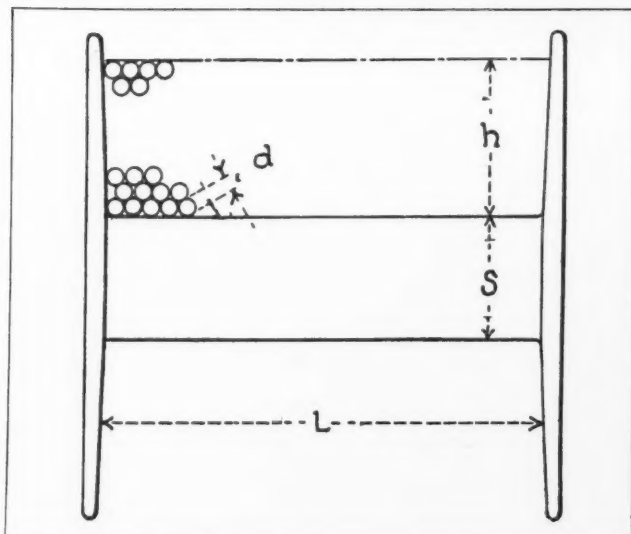


1 x 4 pieces strengthens joists

Dry Concrete Floors

When installing a basement floor in a residence, or in a new house being built, dampness and water trouble can be overcome by excavating just a little deeper, and using hollow tile in a solid layer over the floor first, putting the concrete over the top of the tile.

In putting in a floor of this type, a fairly heavy layer of gravel is placed first, and the tile are laid on top of this. Then the concrete is put over the top of the tile. A relatively thin bed of concrete will serve when installed over tile in this way, if reinforcing is used. This method is to be preferred in many ways to simply laying the concrete on the gravel bed, especially in locations where damp basements are the rule.—John E. Huyler, Peoria, Ill.



Rule for figuring feet on drum is given

Figuring Feet Wound on Drum

Drums and reels are commonly used for storing round rope, cables, wire, hose, etc., and it is sometimes desired to determine the total length either by computation or measurements.

I have never seen a satisfactory formula for computing the length of these stored or wound up articles so I have tried my hand at devising such a formula or rule. As a result I have developed what I believe to be a simpler and more practical rule, and a more accurate one, than has ever been published.

When a rope, cable or wire winds upon a drum or reel it assumes a position such as indicated on the sketch. The rope when winding onto the first layer seeks the "valleys" between the turns of the first layer. In this way the maximum length is wound onto the drum. This is particularly true if the rope is tight.

To determine the number of feet on a drum, properly wound, four measurements are necessary as shown in the sketch:

- h=depth of material on drum, inches;
- S=diameter of drum, inches;
- L=length of drum, inches;
- d=diameter of rope or wire, etc., inches.

The rule is as follows: To the depth of the rope or cable, "h", add "S", the diameter of the drum (all measurements in inches), multiply by the depth "h" in inches, then multiply by the inside length of the drum in inches marked "L" in the sketch; then divide by the square of the diameter of the rope in inches, and lastly multiply by 0.3. The answer is the length in feet.

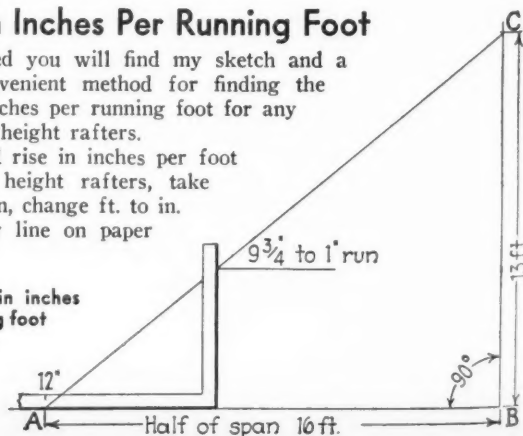
Take, for example, a drum in which h=10 in.; S=20 in.; L=50 in.; and the diameter of the rope, d, is 1/2 in. How many feet of rope on the drum? Apply the above rule and it will be found out that the answer is 18,000 feet.—W. F. SCHAPHORST, Newark, N. J.

Rise in Inches Per Running Foot

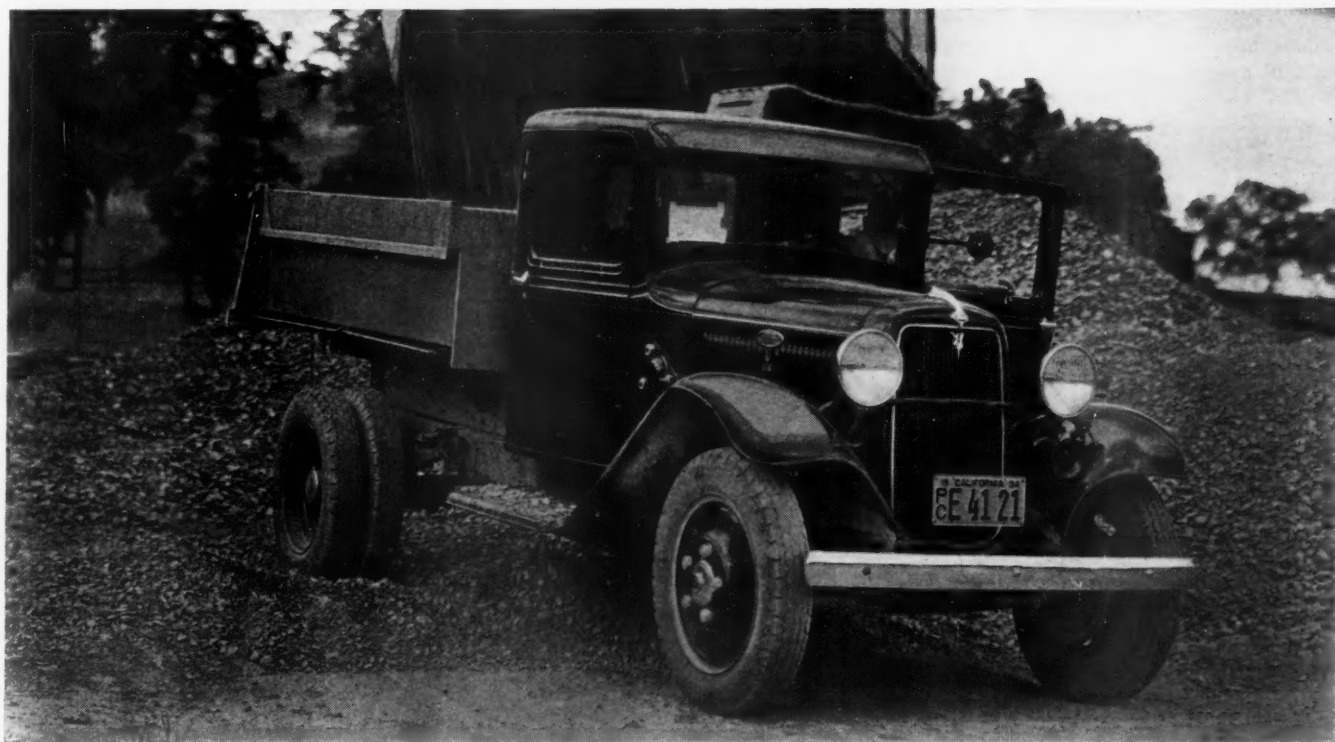
Enclosed you will find my sketch and a very convenient method for finding the rise in inches per running foot for any span and height rafters.

To find rise in inches per foot for any height rafters, take 1/2 of span, change ft. to in. and draw line on paper

How rise in inches per running foot is figured



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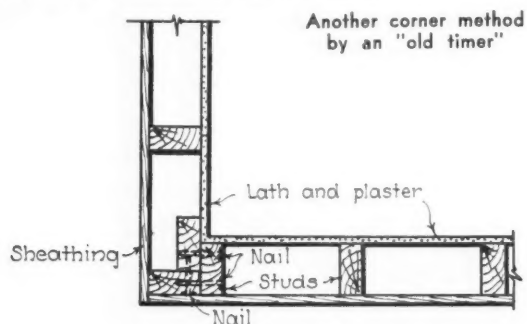
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or board A-B. Next take height of rafter and draw line B-C. Now draw line A-C. Put steel square on line A-B for 1 ft. of run. Line A-C on tongue will give rise per foot.—FRANCIS THOMAS, Contractor, Port Richmond, S.I., N.Y.

More on Corners

As a reader of AMERICAN BUILDER, I wish to submit the sketch herewith. I am 55 years of age, have had many years of experience in the building business, and my father was a builder. I was interested in the corner construction as shown in your October number (I have used it most) also in the January number other corners shown. I have used each one of these, and I agree with Mr. Hibberd in his criticism of the corner in October issue. The corner as shown in the sketch herewith is a good solid corner, and can be made up of any size studs, whether standard or not, just so they are all of one size. You will notice the nailing as shown in this corner. Also when it comes to finishing you have good nailing for base.—WILBURN LONG, General Contractor, Rupert, Idaho.



Another corner method by an "old timer"

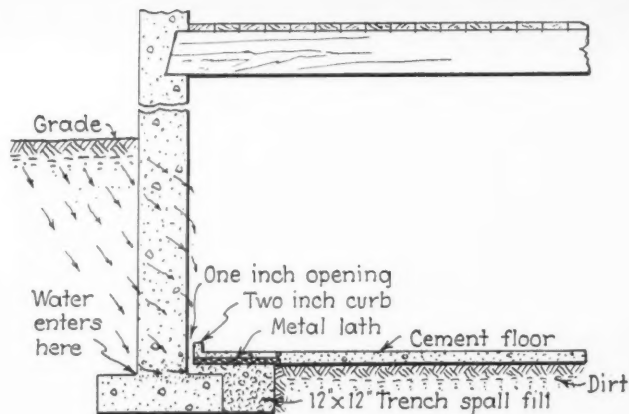
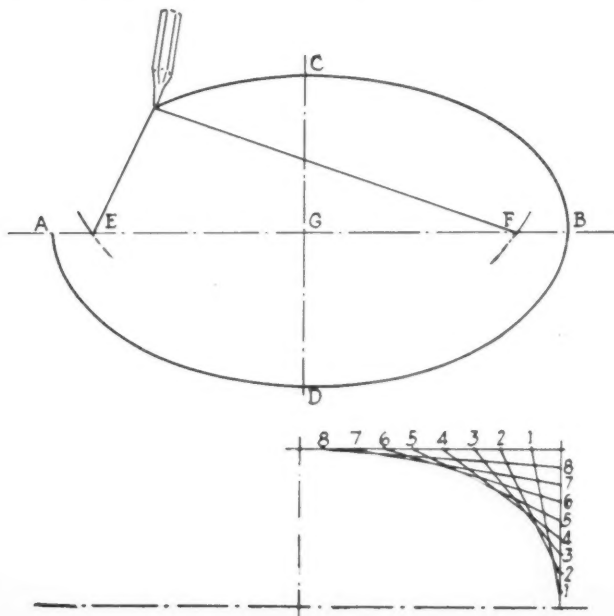
Drawing Ellipse Any Size

Having noticed your article in the November AMERICAN BUILDER on a method for drawing ellipse cuts for small work, I herewith submit something that will meet any big requirement which does not have same radius at any two points.

Draw the major and minor arc's lines, then mark width wanted by A-B and height by C-D. Use compass or trammel to get distance from A to G. Place one point on C and intersect major line at E and F. Drive brad or nail at E and F, hook good hard string or line on F, wrap it around E, adjust length required with one hand while getting pencil on point C or D, and all's ready to draw the ellipse.

This method will hold regardless of size or dimensions.

Another No. 2 method is to take one-half the width and height wanted, space it as shown, and draw lines as indicated. This at times comes handy when cutting arcs for rough ground work.—A. B. MANHERZ, Builder, Oakmont, Pa.



Dry basement plan used in building 79 dwellings

To Get a Dry Cellar

Attached find drawing relative to cellar draining. Several weeks ago, a northeast storm, continuing about sixty hours, caused the flooding of many cellars in this section. During the past three years I have built 79 dwellings in the northern section of Baltimore, and am pleased to say that I received no complaints whatever from wet cellars.

The attached drawing is the system I have applied to take care of the possible results of a continued storm.

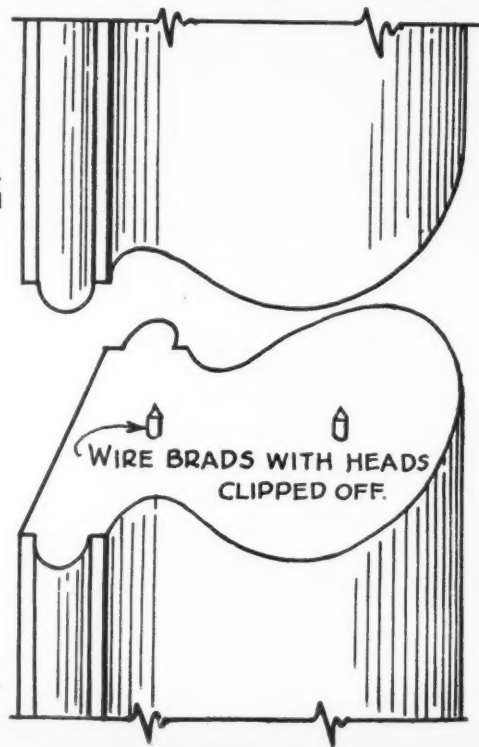
Water generally finds its way into the cellar by entering between the footing and the wall, caused by the footing not being entirely clean of dirt. This dirt generally gets into the voids of the footing between the time footing is laid and the time the wall is begun, and seldom is cleaned out entirely.

If the soil is inclined to be wet, then a connection should be made to carry the drainage to the outside of the building.

I trust this drainage idea will be of assistance to other readers of the AMERICAN BUILDER.—WILLIAM H. GONTRUM, Contractor, Baltimore, Md.

Makes Exact Doweling Easy

My sketch shows a method that makes exact doweling of plain boards or moulded rails easy. This is used in our mill and on the job setting up mill, and in fine cabinet work. Drive brads into the lower end of the rail, and then clip off the heads of the brads. This will leave points about $\frac{1}{8}$ " long. Now a little tap on the upper rail will mark the center of each dowel or rail bolt to be bored.—JOHN H. BUHRER, Chichester, N.Y.



At right is exact doweling method used in mill

At left—any size ellipse can be drawn by this method

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We have no fear of contradiction when we say that any firm which aggressively follows the Flintkote Plan will get the livest prospect list and the most cash sales that it has had in

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To the Editor:

I wish to express my gratitude for your excellent service in having catalogs sent upon application through your journal.

My files are now being filled with the best catalogs I have had for some time and I hope that I am not making too many requests as I am taking advantage of your offer each time it appears in the monthly editions.

I now have the filing index of the A.I. A. and it just fits my need.

N. P. WALTERS,

Building Construction & Materials.

High Prices Stopped Him

Park Ridge, Ill.

To the Editor:

I have followed with interest your recent articles upon building modernization. In fact, my interest had been aroused to the point where I sought bids last week upon certain improvements to my home—improvements which I had hoped to make in 1929, but which I then found to be too expensive. To my surprise and dismay the bid which I received last week was actually higher, for the same work, than the price quoted in 1929. Thinking something was wrong in the figuring I secured other bids, including separate estimates upon labor and material and eventually, acting in the unsatisfactory capacity of my own contractor, I arrived at a cost figure slightly below the 1929 level.

This relatively insignificant reduction makes the cost even more prohibitive now than it was in 1929, and in consequence the work will not be done. Any appreciable volume of home modernization work, it seems to me, will be developed only if and when the costs of such work are brought down to the lowered levels of individual earnings and of property values. In other words, with 1929 home values and personal incomes, a \$1,000 improvement to a house might have been good sense, but with 1934 property values and salaries these same physical improvements at \$975 are certainly no bargain.

P. G. OTTERBACK.

Modern Appeal

Manistique, Mich.

To the Editor:

This summer I have rebuilt and modernized three houses in which "newness" was the keynote.

CHARLES PASSENHEIM.

Favors Builder Association Idea

Cincinnati, O.

To the Editor:

I read with much interest your article, "Who Represents the Builder?", and will say that it is high time that the residential builder speaks for himself, for it is he who is responsible for the completion of a satisfactory and livable unit.

It would seem that the architect is trying to discredit the home builder and would imply that he alone is able to build an honest house—with no responsibility. I think the architect is just a part of the picture as a whole; true, he is very important, but I believe he is most successful when he sticks to larger and more artistic work, for he is an artist, and for that reason he usually lets cost run too high.

I should like to see a National Residential Builders' Association, for I believe the builder is the only one trying to keep down the cost of home ownership, and the only one looking after the interests of the prospective home owner.

H. S. GORDON,

Kenwood Realty & Home Building Co.

Try Them Again!

Tyler, Tex.

To the Editor:

I have just read your article on the National Housing Act. I am very interested in this government venture. There are three banks and three loan associations in our town of about thirty thousand people. I have interviewed all six of them and each assures me that they are not going to invest any money in this Housing Act.

We have been taking notes for repairs and remodeling work for the last two years. We have been discounting them 16 per cent, endorsing the notes and selling them to an Ohio loan company. This hardly seems fair to the home owner. We will certainly appreciate all the information you can give us on how to finance repairs and remodeling.

SAM R. HILL,

Sam R. Hill Lumber Co.

An Architectural Experiment

San Francisco, Calif.

To the Editor:

This octagonal house was designed by a man who felt sure he had solved the problem of providing plenty of light and air for every room. It was built in San



Francisco, Calif., in 1864. Five houses were built but the design did not become popular.

The walls are of concrete eighteen inches thick, which explains in a measure its excellent condition after seventy years.

The interior arrangement is interesting. A hallway extends across the house on each floor, the upper floor being reached by a stairway at the end of the hall and against the outside wall. All rooms are front rooms and each room is square or nearly so. Such an arrangement cuts off angles and these spaces are used for closets. The house has an attic and observatory from which you get an unsurpassed panorama of San Francisco bay.

P. M. BRUNER.

"Memorized Sales Talk is the Bunk"

Arco, Minn.

To the Editor:

In reply to your article on page 43, August paper, by Frank W. Brewster:

I have been on the selling end of lumber, coal and hardware for 25 years, and a memorized selling talk is the *bunk*. I have turned down jobs where a sales manager forced a memorized selling talk on their salesmen. Reasons: a memorized sales talk can be detected by a shrewd buyer; and most of the salesmen will sing off a memorized selling talk. No force to that. A memorized selling talk gets out of gear when a customer butts in before it is done, and that is sure to happen.

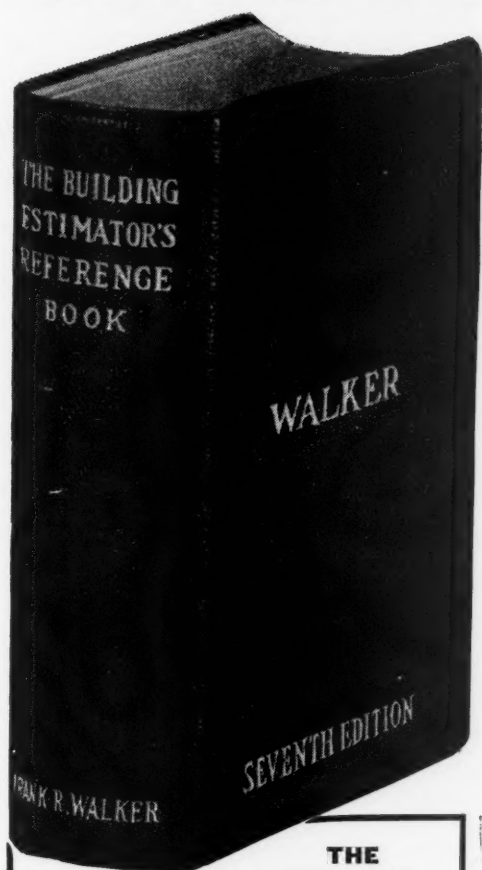
Learn all you can about the material you are selling. A real salesman can put those points before his customer at the opportune time while he is talking. Most of the salesmen talk too much and talk themselves out of the sale. If you will let your customer talk, he will lead the way and it will take less time to bring the deal to a close. No memorized selling talk. Any good salesman has to know character. And after he has started a selling talk he has to be able to watch the characteristics of his customer. The salesman that has a line of bull to fit the customer's character *wins*, and this bull has to come out of the spreader in different words and ways to meet the characteristics of the different customers. It cannot be a memorized line of bull. It takes wits, personality and a good line of bull to make a good salesman.

Bring on your memorized selling talk salesman, and we will pit our bull spreader against him any time. A memorized selling talk brings about too many questions that could have been avoided by waiting to see what the customer wanted to know.

J. C. MADSEN, Mgr.,

Hayes-Lucas Lumber Company.

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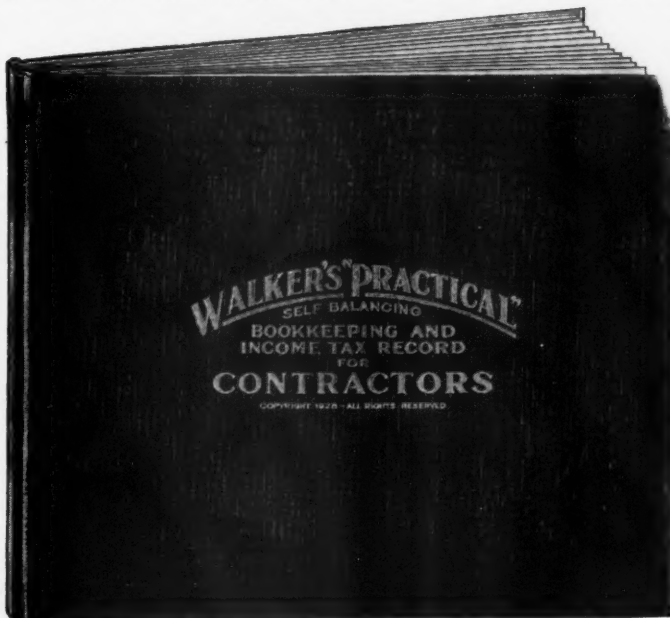
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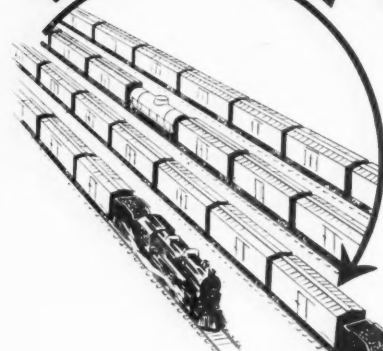
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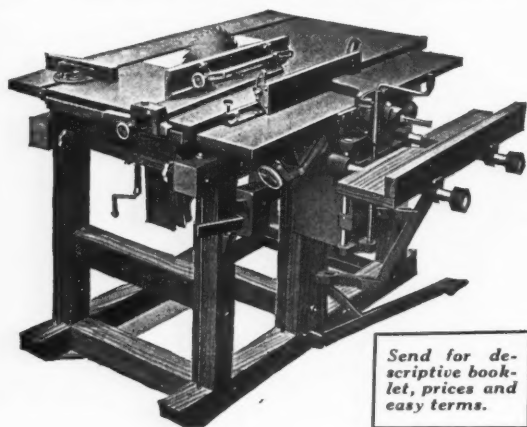
and unloaded, or are in transit daily. Your car is located and the information given you immediately upon receipt of your inquiry. Use this service freely—it is maintained for your convenience.



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NEWS OF THE MONTH

Building Activities and Meetings

Insure Building and Loan

RULES and regulations for insurance of investments by the Federal Savings and Loan Insurance Corporation have now been prepared and approved. It is expected that the Corporation's insurance will ultimately protect accounts held in some 7000 thrift and home-financing institutions by approximately eight million investors of large and small means.

Copies of the regulations, including specimen application forms for the various classes of insurable institutions have been mailed to all Federal Savings and Loan Associations, all members of the Federal Home Loan Bank System and all insurable non-member institutions. It is the Corporation's purpose to insure promptly the solvency up to \$5000 of each individual account held by all eligible institutions which apply for insurance, subject only to such delay as may be needed for the proper examination of each institution.

It is emphasized that the value of such insurance will be to protect any holder of an insured account up to \$5000 against the default or insolvency of the insured institution, by giving him the option of transferring his account, in the event of default, to another insured institution which is not in default, or of repayment of the full amount of his account, 10 per cent being payable immediately in cash, 45 per cent in the Corporation's negotiable non-interest bearing debentures payable in one year and the remaining 45 per cent in such debentures payable within three years of date of default.

Under the terms of Title IV of the National Housing Act, all accounts held in all Federal Savings and Loan Associations must be insured, while the Corporation may likewise insure accounts held in building and loan and savings and loan associations, co-operative banks and homestead associations under State charter which apply for such insurance and are found eligible under the rules and regulations.

For the first year of operation, the insurance premium charged will be the minimum permitted by law, namely one-quarter of one per cent annually of the total amount of all accounts of insured members of the insured institution plus its creditor obligations. Additional assessments, if any, will be determined entirely by future experience.

* * *

More Subsistence Homesteads

APPPLICATIONS for subsistence homesteads have passed the 22,000 mark and are mounting at the rate of nearly 100 a week in the project offices of the Division of Subsistence Homesteads, reported Charles E. Pynchon, general manager of the Federal Subsistence Homesteads Corporation, on Sept. 16.

Requests for homesteads now on file indicate, according to the report, an average of more than four applications for each of the 5,000 small farm homes planned or under construction on 40 projects publicly announced to date by the Division of Subsistence Homesteads.

Applications are in addition to more than 300,000 inquiries the Division has received from persons desiring to purchase subsistence homesteads.

A preliminary selection of applicants has been completed on 13 projects comprising 1,800 homesteads. These projects are situated as follows: Reedsville and Elkins, W. Va.; Crossville, Tenn.; Greensburg, Pa.; Hattiesburg, Meridian and McComb, Miss.; Birmingham, Ala.; Three Rivers and Houston, Tex.; Youngstown, O.; Granger, Ia.; and Austin, Minn.

* * *

500 Federal Savings and Loans

OVER 500 Federal Savings and Loan Associations, with total resources exceeding \$75,000,000, have now been chartered by the Federal Home Loan Bank Board, said John H. Fahey, chairman of the Federal Home Loan Bank Board Sept. 9. Of this number, 93 are established building and loan associations, formerly under State charter, which have converted into Federal associations. The first Federal Savings and Loan Associ-

ation was chartered just a year ago, and only 67 such associations were in existence on Jan. 1 of this year.

"The rapid extension of this improved form of private, mutual thrift and home-financing institution in the past few months to towns and cities in practically every part of the United States indicates an improvement in confidence in home mortgage investment," he said. "It is in contrast with the obstacles and opposition which at first delayed the organization of such institutions and subscription to their shares. Its significance is all the greater by the fact that activity in home finance is indispensable to sustained recovery in the construction industries. Charters are now pending in the case of 220 new associations and 173 converting associations, with aggregate resources of \$212,900,000."

The 510 Federal associations so far chartered are located in 38 different States and the Territory of Hawaii, one or more associations being located in each of the 6 largest American cities and in hundreds of smaller communities.

* * *

Cleveland for Better Housing

ANXIOUS to get the greatest possible benefit from the terms of the National Housing Act which allow for financing of repairs, modernization and improvements for buildings, the building trades of Cleveland have put their shoulders to the wheel in a lively Better Housing Program.

Organization details are as follows: A Real Property Advisory Council existed in Cleveland and this group took the initiative to appoint an executive committee for the Better Housing Program.

The executive committee then appointed the following committees to conduct special functions of the campaign. First was the Finance committee charged with the important job of raising funds to conduct the campaign. Solicitation was made of companies which would benefit by a revival of building activity, both those effected directly such as the building materials companies, etc., and general department stores, public utilities, etc. A budget of \$40,500 was set up for the campaign.

A publicity committee was named to direct the publicity. The first move of this committee was to engage the services of an aggressive advertising and publicity agency to work out the details of attracting public attention.

A loans committee was charged with the task of co-operating with local banks and lending institutions to smooth out any difficulties that might arise through the use of private capital for the loans.

The Building Industries committee saw to the organization and co-operation of firms and representatives of the building industries, the backbone of the whole campaign.

Women were organized into a Women's committee which took care of the feminine aspect of the drive.

On the Consultation committee fell the task of dividing the Cleveland area into nine divisions, establishing a decentralized system of contacting the public by establishing offices in each district where members of this committee placed people who could talk with the home or business property owner who desired information and guidance.

A field campaign manager was employed to work at executing the plans of the campaign not only through the four weeks' intensive campaign but to continue the drive until the Spring of 1935.

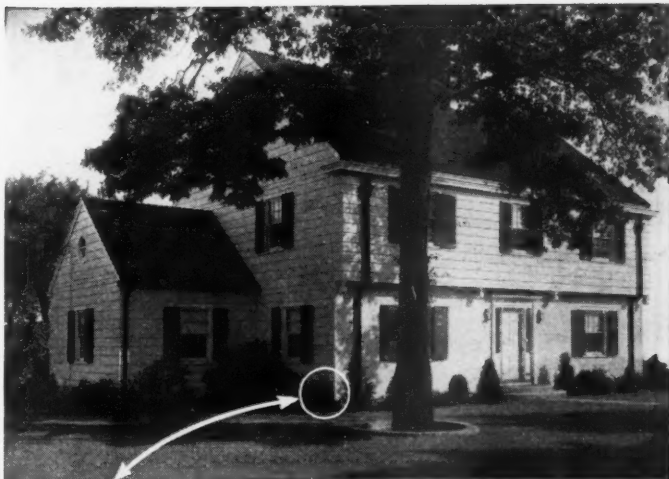
Three large groupings—the residential properties, the income properties, such as apartments, office buildings, etc., and the industrial properties—were set up to carry on the drive to each of these types of building owners.

Federal money has been granted to employ 175 women to make a house-to-house survey, similar to the one made last Spring to check on work to be done. Cards will be filled in for each call and these cards will be available for contractors, builders, carpenters, plumbers, etc., to work on as prospects.

* * *

A. G. C. to Fight Day Labor

A"NEW DEAL" for general contractors, relieving them of the increasing competition of the government's day labor operations in construction, is to be sought by the Associated General Contractors of America at its annual Fall Board Meeting, to be held Oct. 22 and 23, at Chicago.



This vulnerable spot can be protected by a PROVEN PRESERVATIVE

THE man who pays the bill doesn't want to take chances on the permanence of his home or the security of his investment. He wants protection in vulnerable spots. He knows that decay and termites are a constant menace to untreated lumber. He wants protection against such attack—the protection afforded only by impregnation with a proven preservative.

Many substances have been tried for protecting timber in the past hundred years. Only two—creosote oil and zinc chloride—have stood the test of long years of service under all kinds of conditions and achieved recognition by authorities. This company offers standard pressure treatments with these standard preservatives.

Home owners take no chances when they protect their homes by the installation of AmCreCo lumber.

AMERICAN CREOSOTING COMPANY

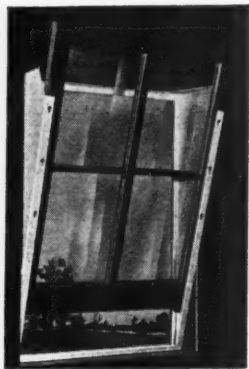
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LOOK at this NEW AIR-FLO WINDOW for



IN FIVE SIZES—To take wood sash, 4 light 9"x12", to 9 light 9"x12".

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Think of it—a complete window frame including metal casing, frame and ventilating wings for this remarkable low price. Simple and quick to install . . . fits between studding 24" on center. Galvanized . . . rust resisting . . . won't rot . . . won't swell . . . won't stick. With ordinary wood sash makes an ideal ventilating window. Tilts for indirect ventilation—also tilts and raises.

Orders Pouring In

Carpenters and contractors are loud in their praises of this new Clay Window. Ideal for farm buildings . . . barns, poultry houses, hog houses, sheds . . . also, for garages, warehouses, cottages, tourist camps and many other uses.

Ask your lumber dealer or write direct to

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Dept. AB-10, Cedar Falls, Iowa



Charging that the Federal government has encouraged day labor competition, and the consequent undermining of the contract system, through the issuance of an executive order permitting governmental agencies to receive preferential discounts up to 15 per cent below posted minimum code prices in the direct purchase of materials, the Association's board is expected to make a formal demand that the order be rescinded.

Evidence will be presented to the Board showing that, in the three months since the order was issued, thousands of dollars worth of construction work which ordinarily would be offered to general contractors for competitive bids, has been diverted to the day labor system on the pretense that the governmental agencies could, with preferential purchasing power, do the work more cheaply with their own forces.

* * *

Kendall Directs Creo-Dipt

THE Creo-Dipt Company, Inc., of North Tonawanda, N. Y., has been reorganized and H. P. Kendall, Jr., has resumed active management of the business as president and general manager, effective as of Sept. 4, 1934. Mr. Kendall was one of the principals of the original Creo-Dipt business almost from its inception.

* * *

Housing Experts Visit U.S.

HOW European countries are solving the housing problem is being explained to American housing officials by Sir Raymond Unwin of London, England; Miss A. J. Samuel of Liverpool, England; and Ernst Kahn of Frankfurt, Germany, who are visiting 36 of the largest American cities.

Sir Raymond, as a member of the British Ministry of Health, built 2,400,000 housing units after the war, and was knighted for his distinguished services in the field of housing.

Miss Samuel is the manager of a large housing development on the outskirts of Liverpool.

Mr. Kahn has directed extensive housing projects in Frankfurt, Berlin, and other German cities and is an authority on the economics of housing.

"England is in the midst of a housing boom," is the good news which Sir Raymond brought to his American audiences. Local and state housing officials, and men in the construction industries were cheered by his news and now have increased confidence in their attempts to get the building industry off "dead center."

"More than 240,000 housing units were built in England in 1933," Sir Raymond said. "Most of these were single-family dwellings for skilled laborers and salaried workers."

"More than 200,000 of these were financed by private agencies who find housing a profitable field of investment. The loans are amortized over a 20 year period at from 4½ to 5 per cent. Municipal housing projects are generally amortized in a 60-year period."

Reforms necessary in housing finance were outlined by Mr. Kahn who declared that, in his opinion, the fact that housing is at a practical standstill in America today is due to the speculative evils of the past.

"Europe, with centuries of experience in housing, knows better than America that housing is an investment and should not be regarded as a speculative enterprise. Your Federal Housing Administration with its provisions for reforms in housing finance is a very hopeful development."

"The stability of housing in Germany is indicated by the fact that we have some building and loan associations which have not missed a dividend for 120 years."

Mr. Kahn mentioned the extensive housing developments which took place in Germany since the war and said that a third of the German people have been rehoused as a result of these efforts.

Miss Samuel, who is the manager of a 1,200-house model town on the outskirts of Liverpool, says that, due to low construction and financing costs, a six-room house and garden can be rented for \$4 a week in this government built English project.

Speaking of taxation, Sir Raymond said, "In my country we think of property only in terms of income. It is only on a small scale that we ever think of capital appreciation. As a consequence, in the worst of the industrial slump we had no slump in real estate, and our private commercial builders built more

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houses last year than they have ever built in any other one year.

"We not only think of property in terms of income, we also tax it in terms of ratable income. We rate property (levy general taxes) only on the income that is being derived from it.

"We have, of course, in addition, death duties on land. This tax, which is levied only once in a lifetime (unlike 'rates') is levied on capital value."

* * *

Crane Promotes Mork

ON Sept. 1 Crane Co. announced the transfer of Mr. P. R. Mork from New York to the general office in Chicago where he will serve as vice president in charge of sales. Mr. Mork, who was vice president in charge of the New York territory, enjoys a wide acquaintance throughout the industry having served as manager of the Minneapolis and Duluth branches before going to New York in 1927. In his new position he will assume the duties of Vice President H. W. Seymour, who is on leave of absence due to ill health.

* * *

August Contracts Exceed July

THE volume of construction contracts placed during August was slightly higher than that reported for July and 13 per cent greater than the total shown for August, 1933, according to F. W. Dodge Corporation. Out of the August 1934 volume of \$120,244,500 a total of \$51,046,800 was reported for non-residential building types; \$41,905,900 for public works; \$18,641,000 for residential buildings; and \$8,650,800 for public utilities. The August totals for non-residential building and public works classifications were larger than in August, 1933, while for residential building and public utilities the respective totals were smaller than a year ago. For both residential and non-residential building the August totals were smaller than those reported for July.

* * *

Big Slum Projects Announced

THE way was opened for Chicago to receive the employment and social benefits of the largest single Public Works Administration low cost housing and slum-clearance project yet undertaken by PWA with the start of condemnation action in the Chicago Federal Court Sept. 25.

Acquisition of 37 blocks in the near southwest section of Chicago was sought by the Government in one of the largest urban real estate transactions ever undertaken in the United States.

Utilization of this land for good inexpensive metropolitan housing to replace dwellings causing a low standard of health and living in this area is planned. The area named in the suit is bounded by Racine and Ashland Streets on the east and west, and Harrison Street and Roosevelt Road on the north and south. Property owners within the site now will be given opportunity to negotiate options of sale through conference and agreement with the Government.

It is estimated that this Chicago project will cost around \$12,500,000 and will accommodate 3,000 families. The money will be taken from a fund of \$25,000,000 budgeted for a PWA housing program in Chicago, of which this will be the first project.

The Chicago program has been under study for some months by Col. Horatio B. Hackett, director of the Housing Division, and experts working under him. The development will bring to a blighted area the benefits which come from good housing and the installation of parks and recreational areas. It will replace unsatisfactory living conditions with modern, healthful, airy buildings surrounded by landscaped areas. It will offer in place of run-down dwellings living quarters of a high type and will demonstrate a new type of residential reconstruction to the city.

At approximately the same time Administrator Harold L. Ickes announced that court action would be instituted to acquire the site for a \$3,000,000 housing project in Indianapolis, Ind.

All preliminary steps to establish the Indianapolis project have been taken by the Housing Division of PWA. Ninety per cent of the site has been placed under option, and an architect's contract for the project has been signed. The general



An average service of 30 years has been established by test for Samson Spot Cord.

More than forty years of actual use substantiates these tests.

Samson Spot Cord is specified by architects because such specification is definite and positive—Spot Cord is made in one grade only and is identified by the trade mark, the colored spots. Substitution is easily detected and is unnecessary because Samson Spot Cord is available to contractors and builders through Hardware and Supply dealers in every section of the United States.

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In old homes or new, whether for renting or selling, "PERFECTION" BRAND Oak Floors give service and satisfaction. The greatest value for the money.

Take advantage of the new Housing Administration Act and sell good Oak Floors on your modernizing jobs.

"PERFECTION" BRAND Oak Flooring as furnished by your local dealer is carefully manufactured from selected timber, scientifically seasoned and kiln dried, easily finished. Ask your dealer today to show you the "PERFECTION" BRAND.

Complete information is yours for the asking. Write us today. Sold only through retail lumber dealers.



ARKANSAS OAK FLOORING CO.
PINE BLUFF ARKANSAS

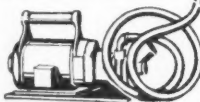


This marvelous machine completely solves the problem for renovizing masonry buildings, walls, etc. It fuses a plastic mixture to any masonry surface. This plastic material water-proofs and fills all cracks. It can be applied in varying thicknesses desired and in 30 colors and shades. Process proven by over six years of actual use under all conditions and in practically every climate.

OFFERS BIG EARNINGS

Many operators report costs of only 8c to 10c with sales at 20c to 35c per sq. yd. The profit on one order often pays for machine. Now the big government renovizing campaign and the increasing demand for color offers large profits in your territory. Machine furnished on free trial and easy payments. Territory protected. Learn about this wonderful machine and what it has accomplished for others. Send for complete data. Write today.

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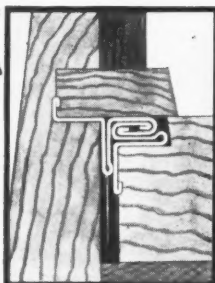
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When you figure a H.O.L.C. or F.H.A. modernizing or repair job, include Protex weatherstrips. They are easily installed in old or new buildings. The exclusive patented features found only in the Protex line make selling easy. Get in touch with us at once. We will tell you how to sell the H.O.L.C. and F.H.A. jobs.

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layout of buildings has been determined and preliminary plans drawn.

With 90 per cent of the site under contract, the condemnation proceedings will be taken against the unacquired portions. They also will be used in cases where doubt has arisen as to clear title. The Administrator has asked the Attorney General to file the proceedings in United States Court for the Seventh District of Indiana.

The area on which the project is to be constructed consists of about 11 irregular square blocks, bounded on the North by Indiana Avenue, on the East by Blake Street, on the South by North Street, and on the West by Locke Street. The project is for Negro occupancy.

The development will provide both three and four story apartment buildings and row housing. A total of 850 apartments will be provided, ranging in size from light housekeeping rooms to five-room apartments. Rents will be moderate and commensurate with what present occupants of the site are now paying.

Approximately 55 per cent of the apartments in the project will be three rooms, providing one bedroom; 30 per cent will be four rooms, providing two bedrooms; 10 per cent will be two rooms; 2½ per cent will be light housekeeping rooms.

J-M to Make FHA Loans

FINANCING of home modernizing and improvements of practically every type has been announced by Johns-Manville through a Credit Corporation which it has just set up. Loans will be made at rates prevailing under the Federal Housing Administration plan and will be available to contractors and dealers handling Johns-Manville materials.

Under this plan, according to the company, home improvements of practically every type are eligible although J-M materials used may represent only a part of the total cost of the job.

The entrance of this large firm into financing under the Federal Housing Administration plan is important as it will enable contractors and dealers to finance home improvements in communities where the banks, building and loans or other institutions either refuse to make such loans or are slow or backward in their methods.

Johns-Manville pioneered the installment financing of home improvements in its "Million Dollars to Lend" program the past two years, and followed the time payment plan of selling home improvements successfully. The establishment of the new J-M Credit Corporation enables the company to take advantage of the FHA loan insurance and makes available a great credit reservoir for financing of modernizing.

The action of the company is significant in that it indicates the likelihood of large building material manufacturers and other firms in the building industry setting up their own finance corporations, which will greatly facilitate the flow of credit and supplement loans by banks and building and loan associations, especially in communities where these do not adequately serve the local market.

46% of Homes Unencumbered

ANALYSIS of the recent U. S. Real Property Inventory in 63 cities shows that only 54 per cent of the owner-occupied houses are mortgaged, while 46 per cent are entirely unencumbered. This was reported by Daniel E. Casey, supervisor of the project.

Owner-occupied dwelling units totalling 913,487 and representing 39.4 per cent of the 2,313,955 dwelling units surveyed in the 63 specially selected cities are shown by these preliminary statistics. Of the owner-occupied units enumerated, 354,389 are reported to be free of all encumbrances, 415,283 were found to be mortgaged, and no report as to tenure was received for the remaining 143,815. The free owner-occupied dwelling units thus represented 33.7 per cent of all such units surveyed in these cities and the 415,283 mortgaged, owner-occupied homes, 45.5 per cent.

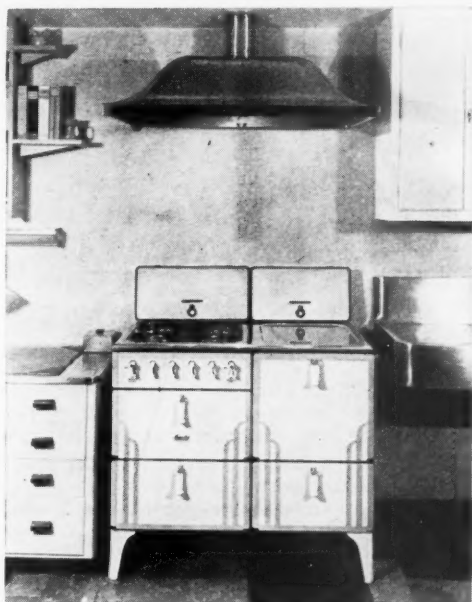
Of the owner-occupied dwelling units on which tenure was reported, a much higher proportion were mortgaged than were owned free in the New England cities, cities in the Middle Atlantic region, the East North Central region, and the West South Central area.

NEW PRODUCTS

FOR FURTHER INFORMATION about any new product write the American Builder Information Exchange, 105 West Adams Street, Chicago, Ill.

New Metal Range Hood

A NEW range hood and ventilator made by the Universal Blower Company of Birmingham, Mich., is designed for residential use. It is made of Monel metal to match other standard fixtures of that material. A built-in electric light furnishes an additional source of light for the range. Hood is equipped with electric motor to provide forced draft. The fixture comes in three sizes—38 by 26 inches, 47 by 28 inches, and 54 by 29 inches.



MONEL METAL HOOD has concealed lighting fixture, ventilating fan.

Floor Repairs in 36 Hours

DESIGNED for repairs for industrial floors, the Stonhard Company of Philadelphia, Pa., has placed on the market its new Stonhard resurfacer. The new material provides a tough, resilient surface for permanent repairs, and is ready for use in 36 hours. No special tools or extra preparation of the old floor is required. Repairs or resurfacing of concrete, wood, brick, asphalt or composition floors are possible.

Handy Test Plier

THE Star Fuse Co., Inc., 235 Canal St., New York City, has brought out a new combination tool for testing circuits and pulling fuses. Made of bakelite and fiber, the tool is safe, convenient, quick. Folding prongs on end of legs of the plier are used for testing base receptacles, sockets, and other fixtures to see if they are grounded. A small carbon lamp glows red to indicate current on line. Fuses are safely pulled with one hand only.



COMBINATION TEST PLIER extracts fuses, tests open circuits, blown fuses, base receptacles, grounded fixtures.



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Modern Building Insulation
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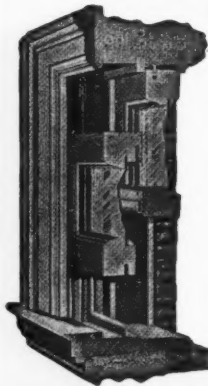
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"ACCURATE" strips have recognized reputation and value. When you install "ACCURATE" strips you know you are backed by thirty years of progress and continuous improvements.

"ACCURATE" strips can be guaranteed for the life of windows and doors; are non-rustable and cost no more than you would pay for cheaper grades. "ACCURATE" strip is supplied in the highest quality only for every opening. Customer's satisfaction cannot be gained by using inferior materials.

Write today for new improvements and details.

Accurate Metal Weather Strip Co.
Box 110, 216 East 26th Street, New York

Low Cost Window Frame

A SIMPLE, inexpensive window frame of galvanized metal which can be installed in a few minutes has been placed on the market by the Clay Equipment Corp., Cedar Falls, Iowa. Frames are made to fit between studdings 24 inches on center in the smaller size; wood sash fit easily and do not bind or stick. Installation consists of cutting a hole in the wall, inserting frame, and nailing it on the outside. Sash is then inserted and a latch attached. Designed for farm buildings, poultry houses, garages, sheds, summer cottages, cabins, etc., the window has a tilting feature which provides ventilation above and below sash. Sash can be opened flat beneath the ceiling.

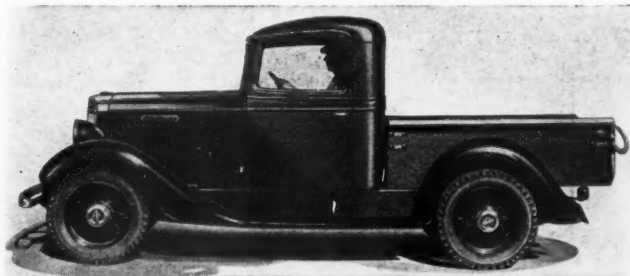


INEXPENSIVE window frame for barns, cottages, etc., is quickly installed, provides good ventilation, swings up flat against ceiling.

Low Cost Truck

THE new model ½-ton six-cylinder Chevrolet motor truck uses a deep frame which is reinforced by extra cross members. It has a cam-and-lever steering gear, roller bearing anti-friction joints, hydraulic pressure-gun chassis lubrication and chrome molybdenum steel axle shafts. Wheel base is 113 inches.

The engine of the new model develops 78.5 maximum brake horsepower at 3400 r.p.m. Low cost engine maintenance and operation is facilitated by removable and replaceable precision-type main and connecting rod bearings, hardened exhaust-valve seat inserts, pressure lubrication, downdraft carburetion and air cleaner. The bore is 3-5/16 inches and stroke 4 1/8 inches. The total displacement is 213.2 cubic inches. Maximum torque of 151 pound-feet is developed at from 800 to 1400 r.p.m.



DEEP FRAME WITH EXTRA CROSS MEMBERS gives improved sturdiness to truck.

Aluminum Pigment Paste

PIGMENT for aluminum paint is now available in the form of paste as well as powder, the Aluminum Company of America, Pittsburgh, Pa., has announced. The new aluminum paste offers the advantage of drying to a smooth finish which does not collect dirt, and which remains clean and bright. The paste is more convenient to mix with the vehicle because it eliminates loose powder flying about during mixing. Aluminum paste is supplied in double compartment cans, the vehicle in one portion, the pigment in another. It is especially recommended for making aluminum paint for interior painting.

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Make this slam test—repeat it—then note how Genasco Slam-Test Shingles can "take it".



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**SLAM-TEST
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Better-But No More Expensive

You are known by the finished jobs . . . one customer tells another . . . and the completed work speaks for itself.

All the more reason why you should use the finest quality shingles . . . the most durable . . . the best looking . . . the ones that pay a fair profit to the builder—GENASCO SLAM-TEST SHINGLES, water-proofed with Trinidad Lake Asphalt Cement.

Let us tell you how Genasco Slam-Test Shingles will get you more business—in spite of cut-price competition. Write your name and address on the margin of this ad and send it to us . . . NOW.



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Beautiful Homes of Moderate Cost

With the co-operation of leading architects a collection of 78 designs for bungalows, small houses and garages suitable for all conditions are brought together in this book. Eight designs are for houses suitable for narrow lots. The examples include 11 New England Colonial style, 10 Dutch Colonial, 5 Spanish and Mission, 5 Italian, 27 English and 15 miscellaneous. There are 17 bungalow plans, 14 5-room houses, 28 6-room houses, 11 7-room houses, 2 2-family houses. In addition there are plans for 10 garages, 6 details of fences, gates, pergolas, etc., and 4 garden schemes.

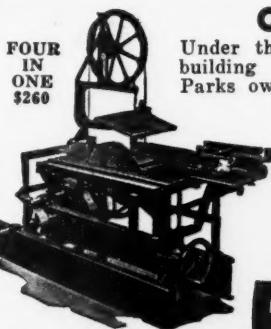
Complete working drawings in blueprint form have been included for a 5 and 6-room New England house, 6-room Colonial Cottage and a 5-room English Cottage. Specifications and bills of material are given in each case.

114 pages, 206 illustrations, 9x12 inches, paper, \$1.50

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Includes 22" band saw, 12" jointer, circular rip and crosscut saw and boring machine.

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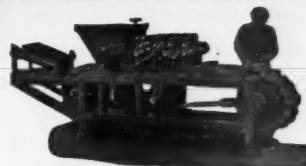
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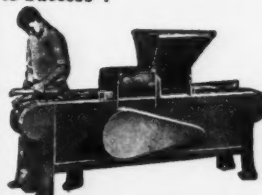
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- 1st. Automatic Line Production at a rate of 3,000 units per hour.
 - 2nd. A Common brick that meets today's new demands for lighter weight, lower cost, higher quality.
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- These outstanding advantages plus exclusive franchise assure your success. Like Belk and others, investigate before your territory is taken. Take the first step today. Send for DUNBRIK book "4 Keys to Success".

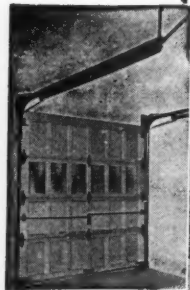
Duntex Roof Tile Machine



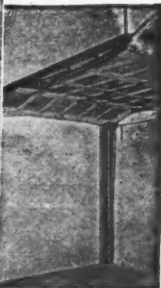
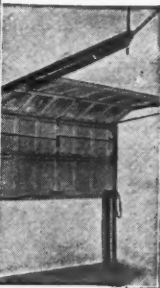
Also offers big possibilities for the progressive contractor to manufacturing America's Most Beautiful Roof, 40 colors and shades, Automatic Line Production, roof a day capacity, low cost, opens the way to big profits. Write for booklet R-4.

W.E. DUNN MFG. CO., 450 W. 24th St., HOLLAND, MICH.

Easier to Install



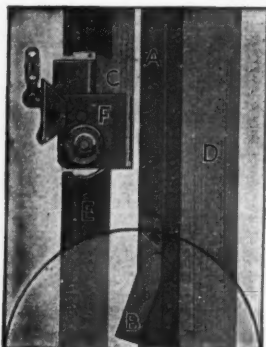
Ro-Way Overhead Doors can't jump the track, bind nor freeze in. They are also exceptionally attractive in appearance.



Ro-Way Overhead Doors require no alterations in most old buildings, and are available in all sizes to fit all door openings. That means real economy for both owner and contractor.

RO-WAY Overhead Doors

—for commercial and residential use



Note how the Ro-Way Door opens without a particle of "drag."

—are made in sixteen different types with headroom requirements of 8½ to 21 inches. All Standard Sizes and heavy duty doors with special heavy tracking are available.

SEAL TITE MOLDING

—is an exclusive Ro-Way feature, which instantly frees all sections of the Ro-Way Door in opening and just as effectively seals the door draft-tight on closing. Write for Folder.

If you have not received Federal Housing Administration Bulletin No. 103, write us.

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Use AMERICAN Sanders—for light weight, great capacity, low cost, beautiful floors. Send for information on complete line.



American spinner on stairs.

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50 YEARS SERVING BARN BUILDERS

Double Glazed Windows

THERMOPANE, the new type of double glazed window which consists of two panes of glass so fitted to each window sash that a dehydrated air space is left between, has been acquired by the Libbey-Owens-Ford Glass Co. of Toledo, which is now marketing the product throughout the industry. The double pane of glass with air space between reduces heat loss through windows 50 per cent, according to engineering tests. The double glazing plan is an aid to control of temperature in homes and other buildings in connection with air conditioning equipment.

Popular Priced Air Valve

EXTENDING its line of air and vacuum valves for radiators, the American Radiator Co., New York City, has placed on the market a popular priced air valve for use on low pressure steam radiators.

Known as the Favorite Valve, it is of all metal construction with a thermostatic float and siphon, and has a nickel case. It is furnished in four models, the number 525 with an angle connection and three straight shank models.

The number 526 has ⅝ inch, straight shank connection, the number 527 has a ¼ inch, straight shank connection, and the number 528 has a ⅝ inch, straight shank female thread and a ¾ inch, straight shank male thread.

ALL METAL construction used in low pressure air valve with thermostatic float and siphon.

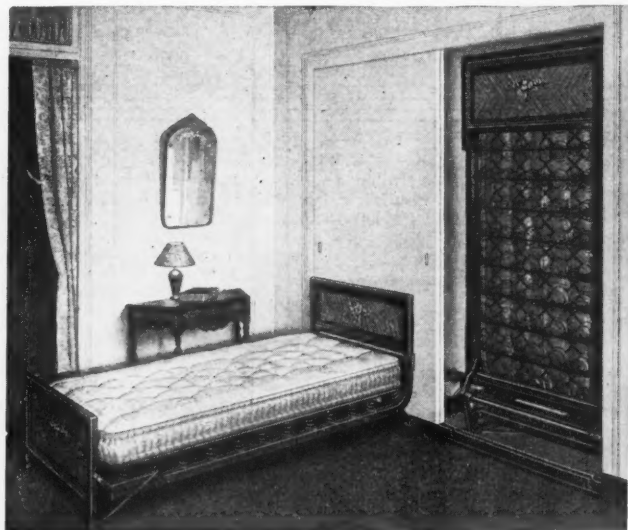


Improved Concealed Beds

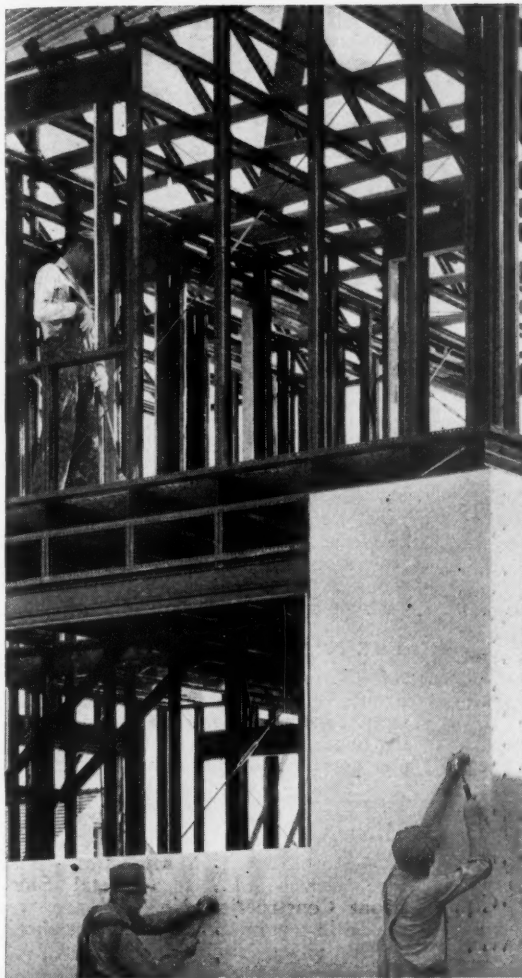
A NEW line of improved concealed beds of interest in connection with modernizing work being done by builders has been placed on the market by the Midwest Concealed Bed Corp. of Evansville, Ind. These beds have simple mechanical details and rugged construction.

Illustrated is the twin come-out recess installation which provides a modern method of twin bed concealment in minimum space. Beds are concealed in a recess 20 inches deep. A pair of rolling doors conceals bed enclosure.

When beds are in lowered position the head ends are completely outside the enclosure, and with opening fully closed, beds closely resemble the modern stationary type positioned against the wall space.



NEW TWIN BEDS ARE CONCEALED in recess 20 inches deep.



AT LAST

Skyscraper Construction for the Modern Home

Stran-Steel Corporation has, by applying scientific methods, perfected a steel frame construction possessing the superior advantages of skyscraper construction (strength, rigidity, fire-safeness, and long life). At the same time, it is easy to erect because its erection is the same as standard wood frame construction.

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No limit as to architectural design or style.

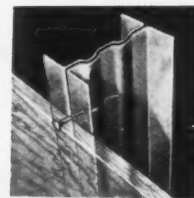
Write today for complete details.

STRAN-STEEL CORPORATION

6100 McGRAW AVENUE

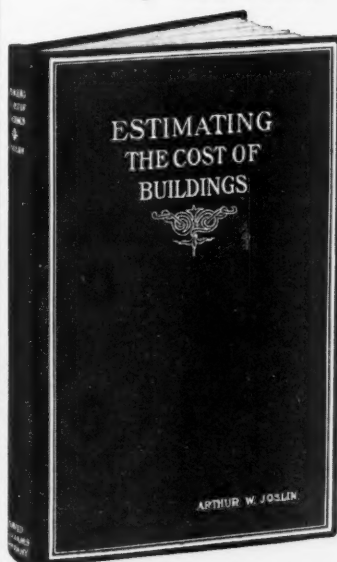
DETROIT

MICHIGAN



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Selected List of Manufacturers' Literature

For the Service of Builders, Contractors, Architects and Dealers

THE publications listed on these pages may be obtained without charge either by using the coupon, listing the numbers of the catalogs desired and mailing to AMERICAN BUILDER, 105 West Adams Street, Chicago, or by applying on your business stationery to the manufacturers direct, in which case kindly mention this publication. Either the titles or the numbers may be used in ordering. This list is an editorial feature for convenience of our readers.

MODERNIZATION CAMPAIGN PLANS FOR DEALERS

THE BARRETT CO., 40 Rector St., New York City

981—**Housing Act Campaign**—"The Chance of a Lifetime! More Business—More Money in Barrett Roofings." An elaborate portfolio of sales and merchandising helps for dealers specializing in roofing materials.

JOHNS-MANVILLE, 22 E. 40th St., New York City

982—**Financing and Advertising**—"Facts About the Johns-Manville Home Improvement Sales Plan in Support of the National Housing Act"—also announcing "The J-M Fall Radio Campaign." 20 pages completely outlining the extensive offerings by J-M to assist dealers and contractors.

UNITED STATES GYPSUM CO., 300 W. Adams St., Chicago, Ill.

983—**Gypsum Sales**—"How Dealers Sell Repairs and Remodeling to National Housing Act Prospects." A complete working manual telling dealers how they can cash in on the repair and remodeling sections, including a complete explanation of the Act, reports and forms and other selling helps.

984—**Modernizing**—"Home Modernizing and Repair Report." An illustrated form suggesting various kinds of work which carpenters and builders can secure with the Government-guaranteed financing.

GENERAL ELECTRIC CO., Merchandise Dept., Bridgeport, Conn.

985—**Rewiring**—"NHA and HOLC Open Up Two Separate Rewiring Markets. Start Now to Get Your Share of Jobs." A stimulating bulletin for electrical contractors and others looking for modernizing business.

MODERNIZING SUGGESTIONS

PORTLAND CEMENT ASSN., Chicago

986—**Concrete Improvements**—"Home Improvement Pictorial." An 8-page rotogravure newspaper illustrating dozens of jobs for the alert worker in concrete. 65 modernizing ideas for your home are listed in a consumer coupon.

THE TILE-TEX CO., 1235 McKinley Ave., Chicago Heights, Ill.

987—**Reflooring**—"Floors That Endure." 12 pages with color plates, job illustrations, patterns, full descriptions, shapes, sizes, etc., of asphalt tile for resilient floors.

REPUBLIC STEEL CORP., Youngstown, Ohio

988—**Sheet Metal Repairs**—"Toncan Topics." The August issue is devoted to the National Housing Act and the opportunities presented.

989—**Stainless Steel**—"The Enduro Era." The August issue is a 4-page folder illustrating restyled store fronts and home interiors using stainless steel.

COPPES BROS. & ZOOK, INC., Nappanee, Ind.

990—**Modernized Kitchens**—Catalog featuring kitchen cabinets and combination sink tops with detail drawings and specifications of Nappanee kitchen equipment.

KOSMOS PORTLAND CEMENT CO., Kosmosdale, Ky.

990-A—**Portland Cement**—"Kosmo News" is a monthly publication showing many job uses of Kosmos Portland Cement of interest to architects, engineers and contractors.

DETAILS OF CONSTRUCTION

WEYERHAEUSER SALES CO., St. Paul, Minn.

991—**End Matching**—"Endless Lumber," 16 pages, well illustrated, featuring better construction at low cost, with end matched lumber.

ARKANSAS SOFT PINE BUREAU, Boyle Bldg., Little Rock, Ark.

992—**Improved House Framing**—"Building Dollars Are Coming Back" is an interesting folder illustrating Arkansas Soft Pine 10 cardinal points of correct wood construction to build homes that endure.

ALFOL INSULATION CO., INC., Chrysler Bldg., New York City

993—**Insulation**—"27 Reasons Why Architects, Builders and Owners Use Alfol House Insulation," an analysis of the heat insulating properties of aluminum foil used in combination with various materials for walls, floors and roofs.

AMERICAN BRASS CO., Waterbury, Conn.

994—**Copperclad Roofing**—"Electro sheet" copper bonded to asbestos felt is offered as a new and better roll roofing. Free sample and full information available on request.

KOPPERS PRODUCTS CO., INC., Koppers Bldg., Pittsburgh, Pa.

995—**Roofing, Waterproofing**—New 12-page data book of information for builders, contractors, architects, dealers, engineers, roofers, etc., on Koppers roofing, waterproofing, dampproofing, flashing and other products.

THE KAWNEER CO., Niles, Mich.

996—**Store Fronts**—"Kawneer Store Fronts" is a reference book for architects, contractors, merchants and building owners; 32 pages containing numerous details and photographs.

DETROIT SHOW CASE CO., Detroit, Mich.

997—**Store Front Construction**—"Full Size Details of Desco Metal Store Front Construction No. 532" are presented in a portfolio of large size sheets on thin paper suitable for blue-printing.

MODEL PANELS, INC., 4020 E. Baltimore St., Baltimore, Md.

997-A—**Paneling**—"Venduro, the Modern Paneling," a 16-page booklet describing modern panel materials and giving detailed drawings for installation.

HOME SPECIALTIES

PEERLESS MANUFACTURING CO., Louisville, Ky.

998—**Fireplaces**—"Peerless Building Specialties" including dome dampers, ash dumps, ash pit doors, Monarch set grates and Peerless gas and electric grates are presented in a 6-page folder.

THE BESSLER DISAPPEARING STAIRWAY CO., Akron, Ohio

1000—**Folding Stairs**—Ten different models of the well known Bessler Disappearing Stairs are presented in a pocket size folder with accurate dimensions and specifications.

DETROIT STEEL PRODUCTS CO., Detroit, Mich.

1002—**Protection**—"Fenestra Guard Windows." A catalog of 8 new windows which combine steel window and steel grille in one unit.

ILG ELECTRIC VENTILATING CO., 2852 N. Crawford Ave., Chicago

1002—**Cooling and Ventilating**—30-page illustrated book on "Ilg Attic Cooling and Ventilating Systems" giving full specifications for cooling through the attic space; estimates and actual examples.